United States Department of Agriculture

Natural Resources Conservation Service

Washington Water Supply Outlook Report May 1, 2006

Water Supply Outlook Reports
and
Federal - State – Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Washington
Water Supply Outlook

May 2006

General Outlook

It is official, spring has sprung, plants are blooming, snow is melting and the rivers are rising, most of them anyway. April brought varying degrees of the evidence of spring including; snow and rain showers, sunshine, freezing and near record high temperatures. Officially all SNOTEL sites in Washington have reached their peak snowpack accumulation and are on the way south along the melt curve, some just beginning and others already showing bare ground. The Climate Prediction Center is now forecasting some chance of above average temperatures and below average precipitation for the rest of this month. This would certainly facilitate a more rapid runoff than normal. However with above average snowpack in most basins, we shouldn't see an early melt out. Spring flooding from snowmelt is also a rare occurrence in Washington.

Snowpack

The May 1 statewide SNOTEL readings remain at 122% of average, compared to 22% in 2005. The Similkameen River Basin snow surveys reported the lowest readings at 80% of average. Readings in the Omak Creek area reported the highest at 209% of average. Western Washington May 1 SNOTEL readings showed snowpack to average 115% of normal, compared to last year at only 26%. Snowpack in Eastern Washington reported an equally dramatic difference between this year and last year with 112% of normal currently on the ground, compared to 25% in 2005. Maximum snow cover in Washington was at Paradise SNOTEL on Mt. Rainer, with a water content of 83 inches. This site would normally have 74.8 inches of water content on May 1. Last year at this time Paradise had only 33.7 inches of snow water.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	281	90
Newman Lake	0	130
Pend Oreille	175	99
Okanogan	207	104
Methow	331	94
Conconully Lake	0	146
Wenatchee	560	105
Chelan	293	101
Upper Yakima	804	111
Lower Yakima	516	118
Ahtanum Creek	674	124
Walla Walla	1278	112
Lower Snake	218	100
Cowlitz	423	118
Lewis	1369	163
White	328	119
Green	4114	99
Puyallup	370	119
Cedar	0	175
Snoqualmie	682	125
Skykomish	801	120
Skagit	315	94
Baker	n/a	105
Nooksack	343	112
Olympic Peninsula	607	94

Precipitation

During the month of April, the National Weather Service and Natural Resources Conservation Service climate stations reported a wide variation in precipitation totals throughout Washington river basins. 131% of average in the Okanogan-Methow Basin was the highest and the Upper Yakima Basin had the low of 61%. All basins on the west side reported below average precipitation. The highest individual station percent of average in the state was at Harts Pass SNOTEL which reported 178% of average. The wettest spot in the state was reported at Skookum Creek SNOTEL with an April accumulation of 11.1 inches, just below the April normal of 11.9 inches. Overall water-year averages held steady or dropped slightly.

RIVER BASIN	APRIL PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	106	102
Colville-Pend Oreille	108	105
Okanogan-Methow	131	124
Wenatchee-Chelan	89	101
Upper Yakima	61	95
Lower Yakima	95	112
Walla Walla	124	106
Lower Snake	112	111
Cowlitz-Lewis	68	101
White-Green-Puyallup	77	102
Central Puget Sound	74	99
North Puget Sound	94	101
Olympic Peninsula	90	107

Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for irrigation season, fisheries management, power generation, municipal demands and flood control. Reservoir storage in the Yakima Basin was 389,000-acre feet, 63% of average for the Upper Reaches and 186,000-acre feet, 110% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 86% of average for May 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 220,000 acre feet, 88% of average and 92% of capacity; Chelan Lake, 146,000-acre feet, 55% of average and 22% of capacity; and the Skagit River reservoirs at 79% of average and 42% of capacity.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane	92	88
Colville-Pend Oreille	34	56
Okanogan-Methow	70	86
Wenatchee-Chelan	22	55
Upper Yakima	47	63
Lower Yakima	80	110
Lower Snake	71	101
Cowlitz-Lewis	N/A	N/A
North Puget Sound	42	79

For more information contact your local Natural Resources Conservation Service office.

Streamflow

May forecasts vary from 148% of average for Colville River at Kettle Falls to 84% of average for the Spokane River near Post Falls. In contrast; last year at this time the highest forecast in the state was 98% of average for the Kettle River and the lowest was 17% of average for Ahtanum Creek. Forecasts in most basins didn't exceed 80% of average last year. Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS.

Statewide April streamflows varied greatly across the state. Many could be influenced by snow melt rates and/or reservoir operations. The Okanogan near Tonasket had the lowest reported flows with 69% of average. The Snake River below Lower Granite Dam with 151% of average was the highest in the state. Other streamflows were the following percentage of average as reported by the River Forecast Center: the Cowlitz at Castle Rock, 82%; the Dungeness near Sequim, 82%; the Columbia below Rock Island Dam, 116%; and the Yakima near Cle Elum, 90%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
Spokane	84-135
Colville-Pend Oreille	94-148
Okanogan-Methow	88-118
Wenatchee-Chelan	95-130
Upper Yakima	107-111
Lower Yakima	108-122
Walla Walla	106-108
Lower Snake	101-118
Cowlitz-Lewis	98-122
White-Green-Puyallup	108-116
Central Puget Sound	97-106
North Puget Sound	97-100
Olympic Peninsula	103-105

STREAM	PERCENT OF AVERAGE APRIL STREAMFLOWS
Pend Oreille Below Box Canyon	127
Kettle at Laurier	141
Columbia at Birchbank	113
Spokane at Long Lake	120
Similkameen at Nighthawk	76
Okanogan at Tonasket	69
Methow at Pateros	103
Chelan at Chelan	103
Wenatchee at Pashastin	81
Yakima at Cle Elum	90
Yakima at Parker	112
Naches at Naches	116
Grande Ronde at Troy	128
Snake below Lower Granite Dam	151
SF Walla Walla near Milton Freewater	193
Columbia River at The Dalles	130
Lewis at Ariel	96
Cowlitz below Mayfield Dam	82
Skagit at Concrete	79
Dungeness near Sequim	82

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BASIN SUMMARY OF SNOW COURSE DATA

MAY 2006

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
ALPINE MEADOWS SNTL	3500	5/01/06	---	62.2	14.0	45.8
AMBROSE	6480	4/26/06	28	11.5	5.8	11.1
ASHLEY DIVIDE	4820	5/02/06	0	.0	.0	1.1
BADGER PASS SNOTEL	6900	5/01/06	68	32.6	21.5	36.2
BAREE CREEK	5500	4/26/06	90	41.8	20.1	40.3
BAREE MIDWAY	4600	4/26/06	69	31.5	7.5	27.4
BAREE TRAIL	3800	4/26/06	15	5.8	.0	1.3
BARKER LAKES SNOTEL	8250	5/01/06	53	17.2	15.4	16.2
BARNES CREEK CAN.	5320	4/26/06	40	17.4	17.2	19.7
BASIN CREEK SNOTEL	7180	5/01/06	30	11.5	8.4	10.0
BASSOO PEAK	5150	4/28/06	8	2.7	.0	3.2
BEAVER CREEK TRAIL	2200	4/28/06	5	2.4	.0	4.4
BEAVER PASS	3680	4/28/06	66	30.8	3.1	27.2
BEAVER PASS SNOTEL	3680	5/01/06	83	41.4	14.5	--
BERNE-MILL CREEK	3170	4/28/06	67	28.3	2.8	22.5
BIG WHITE MTN CAN.	5510	4/30/06	50	20.8	14.5	19.4
BLACK MOUNTAIN	7750	4/27/06	51	19.0	12.6	16.9
BLACK PINE SNOTEL	7100	5/01/06	19	8.5	8.5	11.0
BLACKWALL PEAK CAN.	6370	5/01/06	---	27.8	15.8	34.9
BLEWETT PASS#2SNOTEL	4270	5/01/06	---	2.4	.0	5.0
BLUE LAKE	5900	4/24/06	40	14.9	11.8	22.4
BRENDA MINE CAN.	4450	5/01/06	---	10.2	.0	9.3
BROWN TOP AM	6000	4/28/06	128	60.0	26.0	62.1
BRUSH CREEK TIMBER	5000	4/25/06	5	2.2	.0	3.6
BULL MOUNTAIN	6600	4/26/06	2	.6	.8	2.6
BUMPING LAKE (NEW)	3400	5/02/06	24	11.2	--	10.4
BUMPING RIDGE SNOTEL	4600	5/01/06	75	32.2	.4	27.5
BUNCHGRASS MDWSNOTEL	5000	5/01/06	72	32.7	15.4	28.6
BURNT MOUNTAIN PIL	4200	5/01/06	29	14.1	.0	--
CARMI CAN.	4100	4/30/06	0	.0	.0	1.1
CHESSMAN RESERVOIR	6200	4/26/06	2	.5	.7	1.7
CHICKEN CREEK	4060	4/27/06	22	10.2	.0	5.4
CHIWAUKUM G.S.	2500	4/28/06	0	.0	.0	1.7
COMBINATION SNOTEL	5600	5/01/06	0	.0	.0	1.2
COPPER BOTTOM SNOTEL	5200	5/01/06	0	.0	.0	4.5
COPPER MOUNTAIN	7700	4/28/06	42	14.1	8.9	10.0
CORRAL PASS SNOTEL	6000	5/01/06	---	41.0	13.1	35.3
COTTONWOOD CREEK	6400	4/27/06	22	8.2	6.0	7.3
COUGAR MTN. SNOTEL	3200	5/01/06	37	13.1	.0	11.0
COX VALLEY	4500	4/29/06	89	41.3	4.4	37.1
COYOTE HILL	4200	4/26/06	0	.0	.0	2.6
DALY CREEK SNOTEL	5780	5/01/06	7	2.6	3.7	5.3
DEER PARK	5200	5/01/06	---	10.0e	.0	15.2
DEVILS PARK	5900	4/28/06	93	42.8	17.6	44.7
DISCOVERY BASIN	7050	4/28/06	29	9.5	6.5	9.4
DIX HILL	6400	4/30/06	0	.0	.0	3.8
DOCK BUTTE AM	3800	5/02/06	140	72.8	--	62.9
DOMMERIE FLATS	2200	5/02/06	0	.0	--	--
DUNGENESS SNOTEL	4100	5/01/06	19	6.9	.0	--
EAST FORK R.S.	5400	4/26/06	0	.0	.0	.7
EASY PASS AM	5200	5/02/06	144	74.9	--	86.9
ELBOW LAKE SNOTEL	3200	5/01/06	72	36.3	.0	32.5
EMERY CREEK SNOTEL	4350	5/01/06	2	.7	.0	7.4
ENDERBY CAN.	5800	4/30/06	105	47.6	34.6	43.5
ESPERON CK. UP CAN.	5050	4/29/06	41	17.5	10.3	15.4
FARRON CAN.	4000	4/25/06	28	11.3	6.1	8.1
FATTY CREEK	5500	4/24/06	58	25.3	16.7	23.4
FISH CREEK	8000	4/26/06	43	13.6	9.4	11.5
FISH LAKE	3370	5/02/06	56	29.6	.0	23.1
FISH LAKE SNOTEL	3370	5/01/06	65	27.0	.8	28.8
FLATTOP MTN SNOTEL	6300	5/01/06	112	45.3	31.8	46.7
FLEECER RIDGE	7500	4/26/06	31	11.8	5.1	8.7
FOURTH OF JULY SUM	3200	4/27/06	0	.0	.0	.3
FREEZEOUT CK. TRAIL	3500	4/29/06	16	7.2	.0	6.4
FROHNER MDWS SNOTEL	6480	5/01/06	16	5.8	8.0	6.5
GRASS MOUNTAIN #2	2900	4/28/06	0	.0	.0	--
GRAVE CRK SNOTEL	4300	5/01/06	9	4.2	.0	7.0
GREEN LAKE SNOTEL	6000	5/01/06	75	31.3	6.5	24.6
GREYBACK RES CAN.	4700	4/28/06	21	7.1	2.4	7.0
GRIFFIN CR DIVIDE	5150	4/29/06	6	2.2	.0	4.9
GROUSE CAMP SNOTEL	5380	5/01/06	45	20.7	1.2	11.1
HAND CREEK SNOTEL	5030	5/01/06	6	1.7	.0	6.8
HARTS PASS SNOTEL	6500	5/01/06	89	45.4	13.8	47.7
HARTS PASS	6500	4/29/06	106	49.6	21.0	44.4
HELL ROARING DIVIDE	5770	4/26/06	74	34.0	20.1	29.0
HERRIG JUNCTION	4850	4/27/06	56	23.8	14.7	22.9
HIGH RIDGE SNOTEL	4920	5/01/06	41	19.6	.0	15.9
HOLBROOK	4530	4/24/06	0	.0	.0	1.2
HOODOO BASIN SNOTEL	6050	5/01/06	109	48.7	28.4	45.7
HUCKLEBERRY SNOTEL	2000	5/01/06	0	.0	.0	--
HUMBOLDT GLCH SNOTEL	4250	5/01/06	---	2.0	.0	5.5
HURRICANE	4500	5/01/06	---	15.0e	.0	17.9
INTERGAARD	6450	4/30/06	7	3.2	1.0	6.1
ISINTOK LAKE CAN.	5100	4/27/06	18	5.8	.0	5.4
JASPER PASS AM	5400	5/02/06	185	96.2	--	91.1
JUNE LAKE SNOTEL	3200	5/01/06	101	57.0	.0	29.6
KLESILKWA CAN.	3450	4/25/06	13	5.0	.0	4.8
KRAFT CREEK SNOTEL	4750	5/01/06	0	.0	.0	5.2

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
LESTER CREEK	3100	4/28/06	54	24.2	.0	16.6
LOGAN CREEK	4300	4/25/06	4	1.6	.0	1.7
LOLO PASS SNOTEL	5240	5/01/06	57	25.8	12.3	24.5
LONE PINE SNOTEL	3800	5/01/06	---	50.8	5.7	34.2
LOOKOUT SNOTEL	5140	5/01/06	51	22.3	10.9	27.2
LOST HORSE MTN CAN.	6300	4/30/06	24	7.9	3.4	9.7
LOST HORSE SNOTEL	5000	5/01/06	29	12.5	.0	10.7
LOST LAKE SNOTEL	6110	5/01/06	---	53.5	33.9	59.7
LOWER SANDS CREEK #2	3120	5/01/06	40	18.0	.0	15.8
LUBRECHT FOREST NO 3	5450	5/01/06	0	.0	.0	1.7
LUBRECHT FOREST NO 4	4650	5/01/06	0	.0	.0	.1
LUBRECHT FOREST NO 6	4040	5/01/06	0	.0	.0	.0
LUBRECHT HYDROPLOT	4200	5/01/06	0	.0	.0	.1
LUBRECHT SNOTEL	4680	5/01/06	0	.0	.0	.5
LYMAN LAKE SNOTEL	5900	5/01/06	139	68.8	32.0	67.2
LYNN LAKE	4000	4/28/06	45	20.6	.0	14.5
MARIAS PASS	5250	4/28/06	23	9.7	.1	12.5
MARTEN LAKE AM	3600	5/02/06	157	84.4	--	73.4
MCCULLOCH CAN.	4200	5/01/06	0	.0	--	1.2
MEADOWS CABIN	1900	4/27/06	0	.0	.0	1.1
MEADOWS PASS SNOTEL	3240	5/01/06	53	24.5	.0	10.8
MERRITT	2140	4/28/06	0	.0	.0	4.0
M F NOOKSACK SNOTEL	4980	5/01/06	123	65.9	25.5	--
MICA CREEK SNOTEL	4750	5/01/06	30	11.4	.0	15.3
MINERAL CREEK	4000	5/01/06	0	.0	.0	9.6
MINERS RIDGE SNOTEL	6200	5/01/06	---	56.4	24.0	56.9
MISSION CREEK CAN.	5840	5/01/06	---	22.4	20.0	21.3
MONASHEE PASS CAN.	4500	4/26/06	24	7.4	.1	11.4
MORRISSEY RIDGE CAN.	6100	5/01/06	---	31.0	21.4	27.2
MORSE LAKE SNOTEL	5400	5/01/06	139	68.4	20.3	57.0
MOSES MTN SNOTEL	4800	5/01/06	41	22.8	.1	10.9
MOSQUITO RDG SNOTEL	5200	5/01/06	---	33.1	17.3	32.2
MOULTON RESERVOIR	6850	4/26/06	20	7.9	.3	3.5
MOUNT BLUM AM	5800	5/02/06	138	71.8	--	72.4
MOUNT CRAG SNOTEL	4050	5/01/06	88	26.0	10.4	27.8
MT. KOBAU CAN.	5500	4/30/06	45	16.7	6.5	12.8
MOWICH SNOTEL	3150	5/01/06	0	.0	.0	--
MOUNT GARDNER SNOTEL	2860	5/01/06	16	8.8	.0	4.8
N.F. ELK CR SNOTEL	6250	5/01/06	25	8.3	8.6	8.0
NEVADA RIDGE SNOTEL	7020	5/01/06	33	13.4	10.5	14.4
NEW HOZOMEEN LAKE	2800	4/29/06	0	.0	.0	3.9
NEZ PERCE CMP SNOTEL	5650	5/01/06	26	10.1	4.9	10.8
NEZ PERCE PASS	6570	4/25/06	38	14.9	4.5	14.2
NOISY BASIN SNOTEL	6040	5/01/06	109	47.4	32.0	43.8
NORTH FORK JOCKO	6330	4/24/06	98	46.8	31.7	--
OLALLIE MDWS SNOTEL	3960	5/01/06	118	64.6	11.6	55.1
OPHIR PARK	7150	4/30/06	34	13.4	9.9	16.0
OYAMA LAKE CAN.	4100	4/28/06	7	1.9	--	2.6
PARADISE PARK SNOTEL	5500	5/01/06	---	83.0	33.7	74.8
PARK CK RIDGE SNOTEL	4600	5/01/06	---	46.8	2.5	39.8
PETERSON MDW SNOTEL	7200	5/01/06	32	11.0	8.7	11.0
PIGTAIL PEAK SNOTEL	5900	5/01/06	141	62.6	21.9	56.5
PIKE CREEK SNOTEL	5930	5/01/06	49	21.9	12.3	25.9
PIPESTONE PASS	7200	4/27/06	13	4.3	2.5	4.8
POPE RIDGE SNOTEL	3540	5/01/06	34	13.5	.0	7.0
POSTILL LAKE CAN.	4200	4/28/06	15	6.0	3.2	5.3
POTATO HILL SNOTEL	4500	5/01/06	---	26.8	.0	18.9
QUARTZ PEAK SNOTEL	4700	5/01/06	45	19.3	.0	14.9
RAGGED RIDGE	3330	4/26/06	0	.0	.0	--
RAINY PASS SNOTEL	4780	5/01/06	75	37.7	13.0	43.2
REX RIVER SNOTEL	1900	5/01/06	66	34.7	.0	19.0
ROCKER PEAK SNOTEL	8000	5/01/06	54	19.1	12.4	16.6
ROCKY CREEK AM	2100	5/02/06	54	19.4	--	18.8
ROUND TOP MTN	4020	4/26/06	10	4.2	.0	--
SF THUNDER CK AM	2200	5/02/06	0	.0	--	1.2
SADDLE MTN SNOTEL	7900	5/01/06	71	29.3	15.7	26.5
SALMON MDWS SNOTEL	4500	5/01/06	19	5.7	.0	3.9
SASSE RIDGE SNOTEL	4200	5/01/06	87	38.4	8.8	32.3
SATUS PASS	4030	4/28/06	15	6.1	--	--
SAVAGE PASS SNOTEL	6170	5/01/06	57	24.2	14.3	25.2
SAWMILL RIDGE	4700	4/28/06	56	26.7	.0	32.8
SCHREIBERS MDW AM	3400	5/02/06	114	59.3	--	53.2
SENTINEL BT SNOTEL	4920	5/01/06	10	4.1	.0	--
SHEEP CANYON SNOTEL	4050	5/01/06	100	44.7	1.1	32.0
SHERWIN SNOTEL	3200	5/01/06	0	.0	.0	3.3
SILVER STAR MTN CAN.	5600	4/29/06	72	32.2	25.0	30.1
SKALKAHO SNOTEL	7260	5/01/06	54	23.1	13.0	25.4
SKITWISH RIDGE	5110	5/01/06	63	29.0	2.6	25.8
SKOOKUM CREEK SNOTEL	3920	5/01/06	48	28.6	.0	14.6
SLIDE ROCK MOUNTAIN	7100	4/30/06	39	15.6	10.0	15.7
SOURDOUGH GUL SNOTEL	4000	5/01/06	0	.0	.0	--
SPENCER MDW SNOTEL	3400	5/01/06	---	37.6	.0	21.8
SPIRIT LAKE SNOTEL	3100	5/01/06	0	.0	.0	--
SPOTTED BEAR MTN.	7000	4/24/06	19	7.9	.0	7.6
SPRUCE SPGS SNOTEL	5700	5/01/06	25	11.1	.0	--
STAHL PEAK SNOTEL	6030	5/01/06	86	40.2	29.6	37.1
STAMPEDE PASS SNOTEL	3860	5/01/06	91	43.1	3.5	42.7
STEMPLE PASS	6600	4/24/06	29	9.0	4.6	9.3

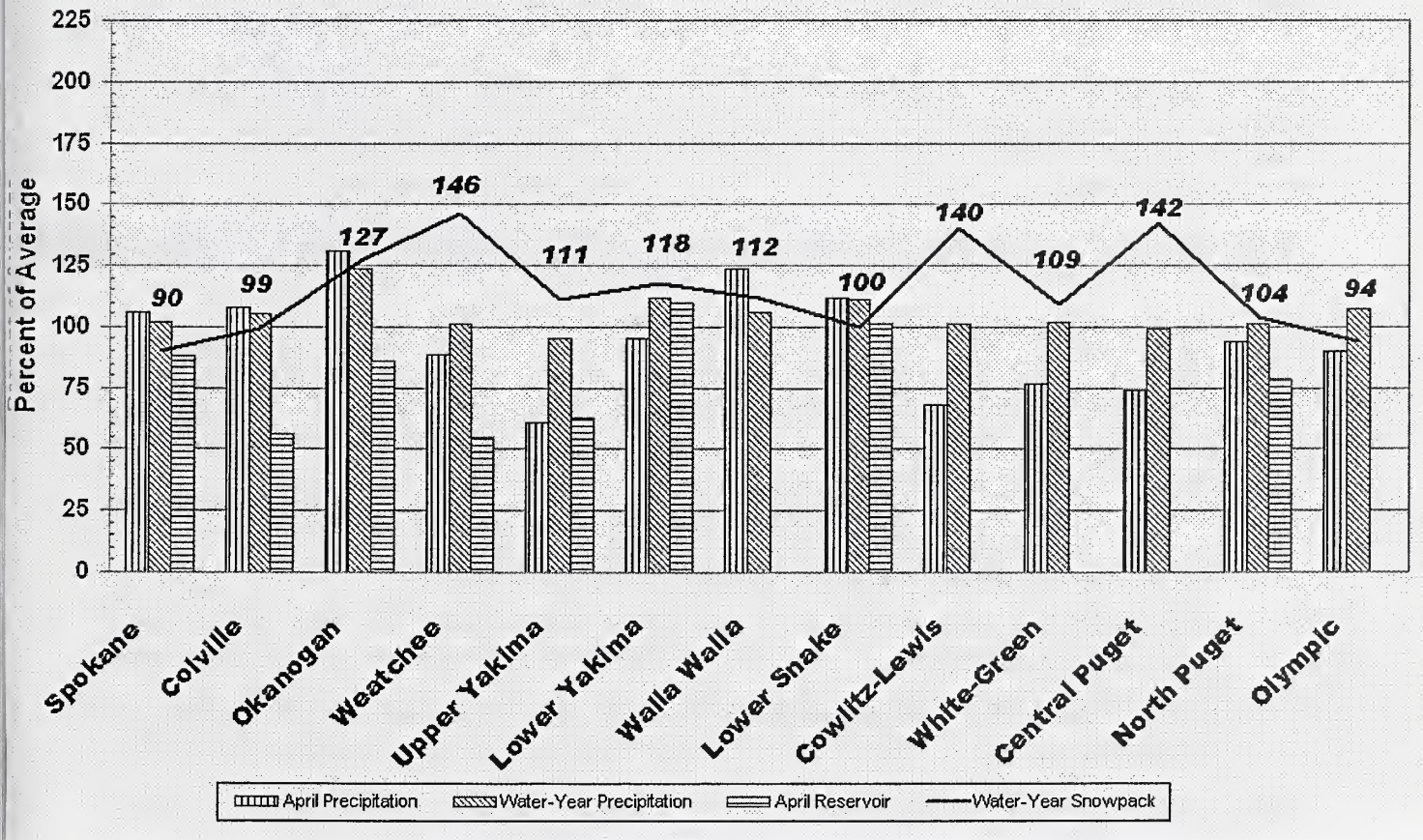
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
STEVENS PASS SNOTEL	4070	5/01/06	86	35.5	2.2	35.2
STEVENS PASS SAND SD	3700	4/28/06	70	32.0	.0	27.5
STORM LAKE	7780	4/28/06	44	15.5	10.4	14.3
STRYKER BASIN	6180	4/27/06	79	32.9	21.8	32.6
SUMMERLAND RES CAN.	4200	4/27/06	11	4.1	.0	5.1
SUNSET SNOTEL	5540	5/01/06	---	16.3	8.3	28.7
SURPRISE LKS SNOTEL	4250	5/01/06	---	64.9	7.2	41.8
SWAMP CREEK SNOTEL	4000	5/01/06	7	4.1	.0	--
TEN MILE LOWER	6600	4/24/06	21	4.6	2.7	4.5
TEN MILE MIDDLE	6800	4/24/06	40	12.1	7.6	11.2
THUNDER BASIN SNOTEL	4200	5/01/06	---	27.2	11.2	27.4
THUNDER BASIN	4200	4/27/06	42	17.8	2.8	21.2
THOMPSON CREEK	2500	4/26/06	0	.0	.0	--
TINKHAM CREEK SNOTEL	3000	5/01/06	66	27.5	.0	20.0
TOUCHET SNOTEL	5530	5/01/06	61	27.7	3.7	26.2
TRAPPING CK UP CAN.	4100	4/26/06	88	37.6	--	1.0
TRINKUS LAKE	6100	4/24/06	97	46.9	32.7	40.8

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
TROUGH #2 SNOTEL	5310	5/01/06	18	6.9	.0	4.3
TRUMAN CREEK	4060	4/28/06	0	.0	.0	.1
TUNNEL AVENUE	2450	5/03/06	22	10.3	.0	12.0
TV MOUNTAIN	6800	4/24/06	53	21.5	13.2	17.4
TWELVEMILE SNOTEL	5600	5/01/06	26	9.8	.0	8.8
TWIN CAMP	4100	4/28/06	35	16.3	.0	20.3
TWIN CREEKS	3580	4/24/06	0	.0	.0	1.7
TWIN LAKES SNOTEL	6400	5/01/06	91	43.4	22.7	38.5
UPPER HOLLAND LAKE	6200	4/24/06	77	34.4	23.1	33.5
UPPER WHEELER SNOTEL	4400	5/01/06	25	10.8	.0	6.3
VASEUX CREEK CAN.	4250	4/28/06	0	.0	.0	2.3
WARM SPRINGS SNOTEL	7800	5/01/06	62	23.6	15.3	23.7
WATSON LAKES AM	4500	5/02/06	136	70.7	--	64.0
WATERHOLE SNOTEL	5000	5/01/06	91	41.0	8.3	--
WEASEL DIVIDE	5450	4/26/06	69	33.0	17.9	32.7
WELLS CREEK SNOTEL	4200	5/01/06	81	40.3	16.1	--
WHITE PASS ES SNOTEL	4500	5/01/06	---	22.7	.0	21.4
WHITE ROCKS MTN CAN.	7200	4/28/06	61	25.2	9.7	21.0

NRCS Natural Resources Conservation Service

May 1, 2006 - Snowpack, Precipitation and Reservoir Conditions at a Glance

(Water Year = October 1, 2005 - Current Date)



USDA NRCS
Natural Resources Conservation Service

Washington State
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Helpful Internet Addresses

NRCS Snow Survey and Climate Services Homepages

Washington:
http://www.wa.nrcs.usda.gov/snow

Oregon:
http://www.or.nrcs.usda.gov/snow

Idaho:
http://www.id.nrcs.usda.gov/snow

National Water and Climate Center (NWCC):
http://www.wcc.nrcs.usda.gov

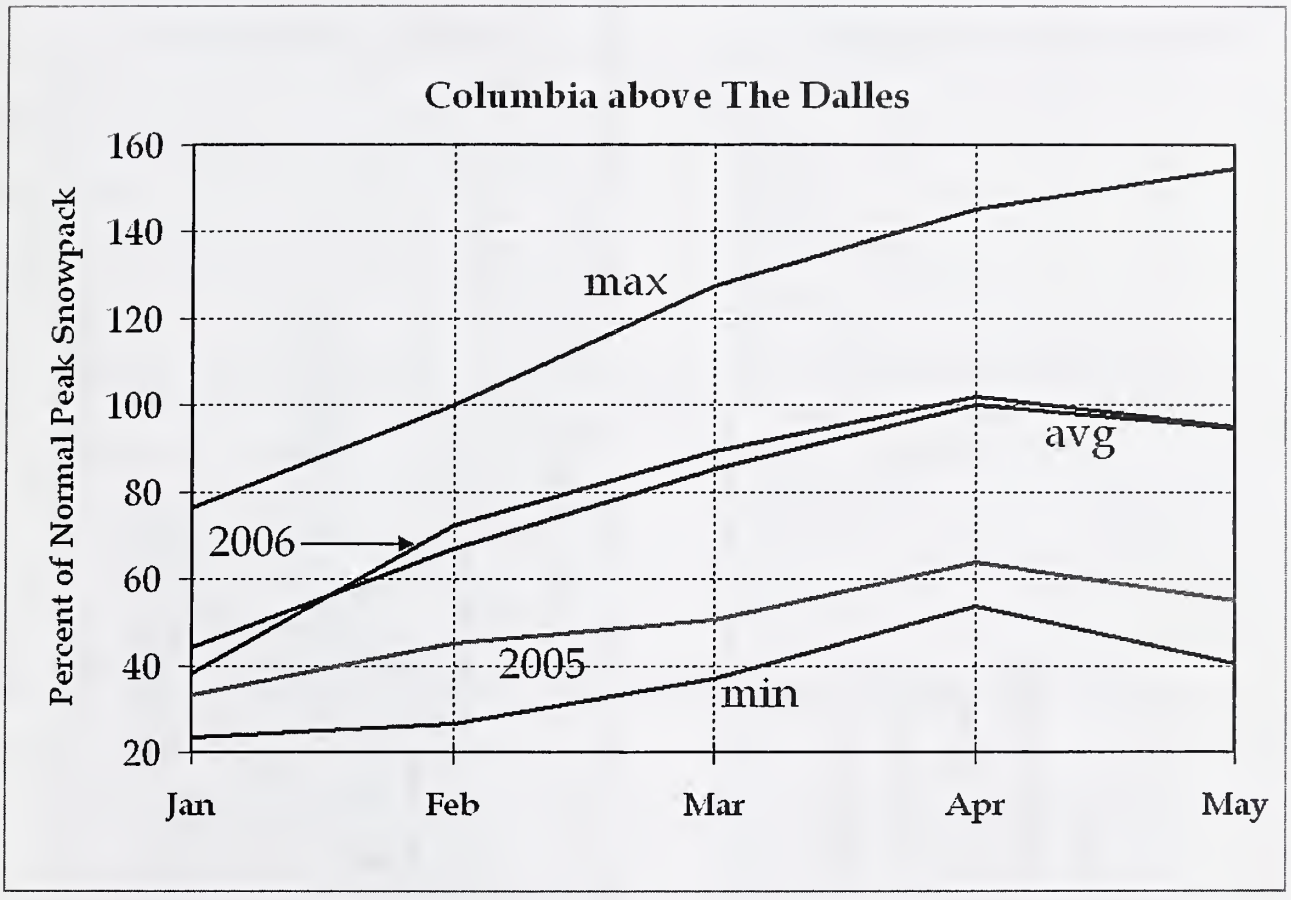
NWCC Anonymous FTP Server:
ftp.wcc.nrcs.usda.gov

USDA-NRCS Agency Homepages

Washington:
http://www.wa.nrcs.usda.gov

NRCS National:
http://www.nrcs.usda.gov

Columbia Basin Snowpack Summary



Columbia Basin snowpack conditions as of: May 1, 2006

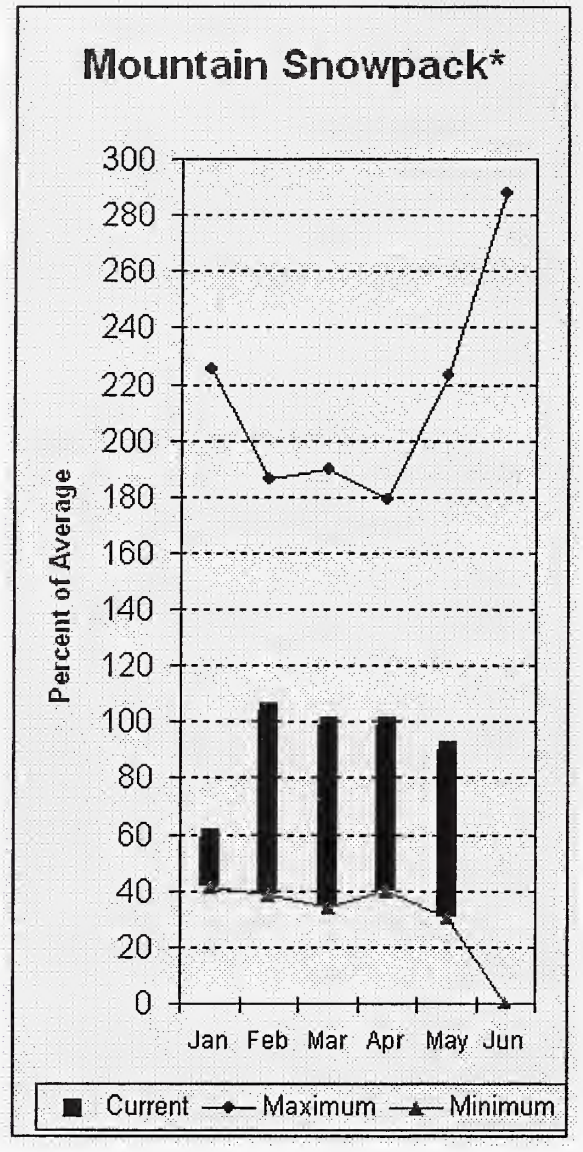
The Columbia Basin snowpack charts are produced with automated snow pillow data, collected by BC Hydro, Alberta Environment, and NRCS Snow Survey Program. These charts will now be available on the first of each month, January through May. Be aware that the data are provisional until they are officially released by the responsible data collection agencies.

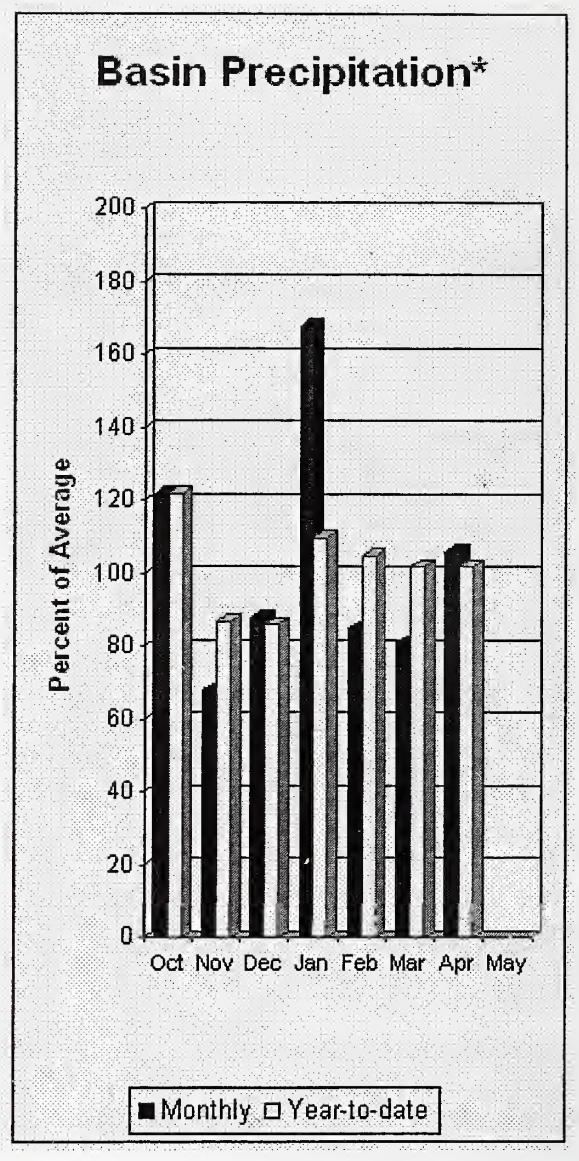
In total, the 2006 Columbia Basin snowpack is about as normal as it gets. The overall snowpack above The Dalles is currently average. This is down slightly from 102 percent on April 1. However, it's a whole lot better than last year's 58 percent of average! While the Salmon, Boise, and Kettle snowpacks increased slightly from last month, most of the basin's snowpack decreased slightly. The biggest losers over the past month were the southern Cascades, Snake headwaters, Kootenay, and Pend Oreille at -12, -7, -4, and -4 percent, respectively. Two to three percent decreases were reported over the rest of the basin.

Precipitation during April was heavy over the middle/southern Snake area and the upper Clark Fork. Precipitation amounts were lowest over the Cascades, upper Snake, and the upper Kootenay.

The snowpack in the Columbia Basin above Castlegar is at 91 percent of average. This compares to 65 percent last year and 92 percent of average last month. For the basin above Grand Coulee, the snowpack is at 93 percent of average. This compares to 63 percent last year and 95 percent of average last month. The Snake River snowpack above Ice Harbor is at 113 percent of average, compared to 58 percent last year and 115 percent of average last month.

Spokane River Basin





*Based on selected stations

The May 1 forecasts for summer runoff within the Spokane River Basin are 84% of average near Post Falls and 86% at Long Lake. The Chamokane River near Long Lake forecasted to have 135% of average flows for the May-August period. The forecast is based on a basin snowpack that is 90% of average and precipitation that is 98% of average for the water year. Precipitation for April was near normal at 106% of average. Streamflow on the Spokane River at Long Lake was 120% of average for April. May 1 storage in Coeur d'Alene Lake was 220,000acre feet, 88% of average and 92% of capacity. Snowpack at Quartz Peak SNOTEL site was 130% of average with 19.3 inches of water content. Average temperatures in the Spokane basin were 2 degrees above normal for April and 1 degree above for the water year.

For more information contact your local Natural Resources Conservation Service office.

SPOKANE RIVER BASIN
Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls (2)	MAY-SEP	1070	1310	1480	84	1650	1890	1770
	MAY-JUL	1000	1230	1390	83	1550	1780	1670
SPOKANE at Long Lake (2)	MAY-JUL	1170	1440	1620	85	1800	2070	1910
	MAY-SEP	1370	1650	1840	86	2030	2310	2130
CHAMOKANE CREEK near Long Lake	MAY-AUG	10.2	12.3	13.8	135	15.3	17.4	10.2
	JUL-AUG	4.1	4.3	4.5	129	4.7	4.9	3.5

SPOKANE RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COEUR D'ALENE	238.5	219.5	198.9	249.7

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2006

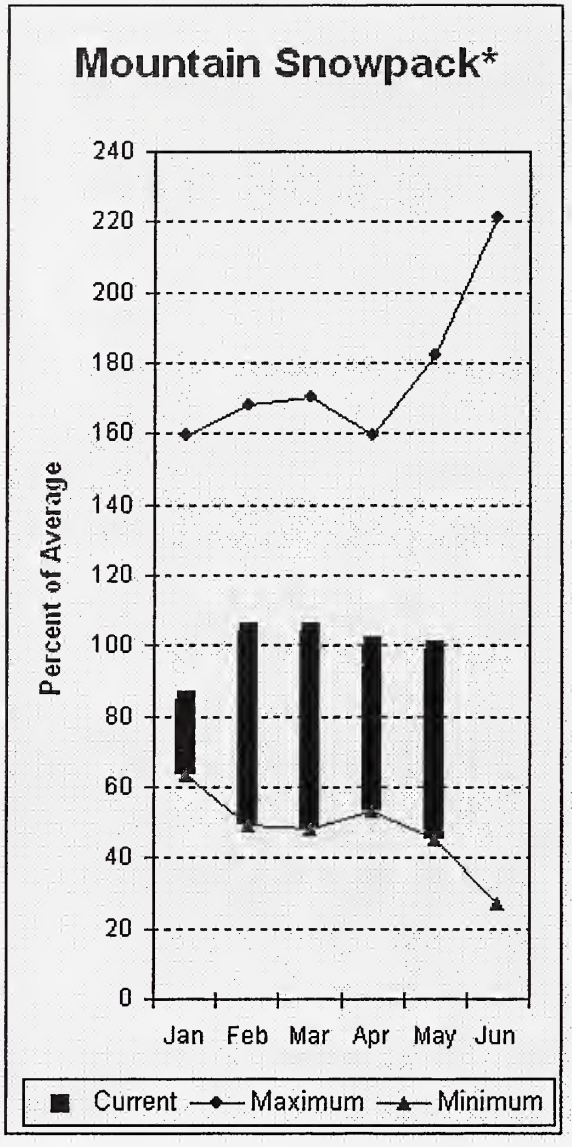
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SPOKANE RIVER	11	281	90
NEWMAN LAKE	1	0	130

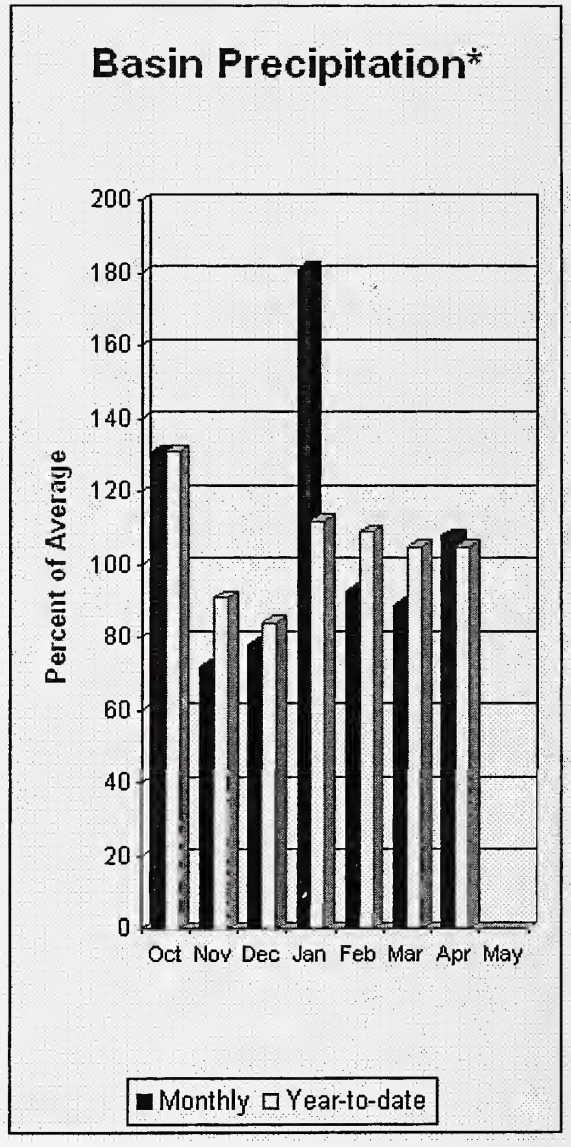
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Colville - Pend Oreille River Basins





*Based on selected stations

The May–September average forecast for the Kettle River streamflow is 99%, Colville at Kettle Falls is 148% and Priest River near the town of Priest River is 110%. April streamflow was 127% of average on the Pend Oreille River, 113% on the Columbia at Birchbank and 141% on the Kettle River. May 1 snow cover was 99% of average in the Pend Oreille Basin River Basin and 156% for the Kettle River. Bunchgrass Meadows SNOTEL site had 32.5 inches of snow water on the snow pillow. Normally Bunchgrass would have 28.6 inches on May 1. Precipitation during April was 108% of average, bringing the year-to-date precipitation to 105% of average. Reservoir storage in the basin, including Lake Pend Oreille and Priest Lake was 56% of normal. Average temperatures were 1-2 degrees above normal for April and 1 degree above for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (2)	MAY-JUL	8790	9690	10300	97	10910	11810	10600
	MAY-SEP	9820	10820	11500	98	12180	13180	11800
PRIEST near Priest River (1,2)	MAY-JUL	570	645	680	111	715	790	615
	MAY-SEP	600	695	735	110	775	870	670
PEND OREILLE bl Box Canyon (2)	MAY-JUL	8520	9640	10400	97	11160	12280	10700
	MAY-SEP	9670	10820	11600	98	12380	13530	11900
COLVILLE at Kettle Falls	MAY-SEP	110	126	136	148	146	162	92
	MAY-JUL	95	108	117	148	126	139	79
KETTLE near Laurier	MAY-SEP	1360	1520	1630	99	1740	1900	1640
	MAY-JUL	1290	1430	1520	99	1610	1750	1540
COLUMBIA at Birchbank (1,2)	MAY-JUL	26332	28579	29600	94	30620	32870	31600
	MAY-SEP	33636	36499	37800	94	39100	41960	40200
COLUMBIA at Grand Coulee Dm (1,2)	MAY-SEP	47323	51502	53400	94	55300	59480	56700
	MAY-JUL	38413	41842	43400	93	44960	48390	46600

COLVILLE - PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROOSEVELT		NO REPORT		
PEND OREILLE	1561.3	946.2	952.5	916.7
PRIEST LAKE	119.3	107.4	90.8	102.5

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

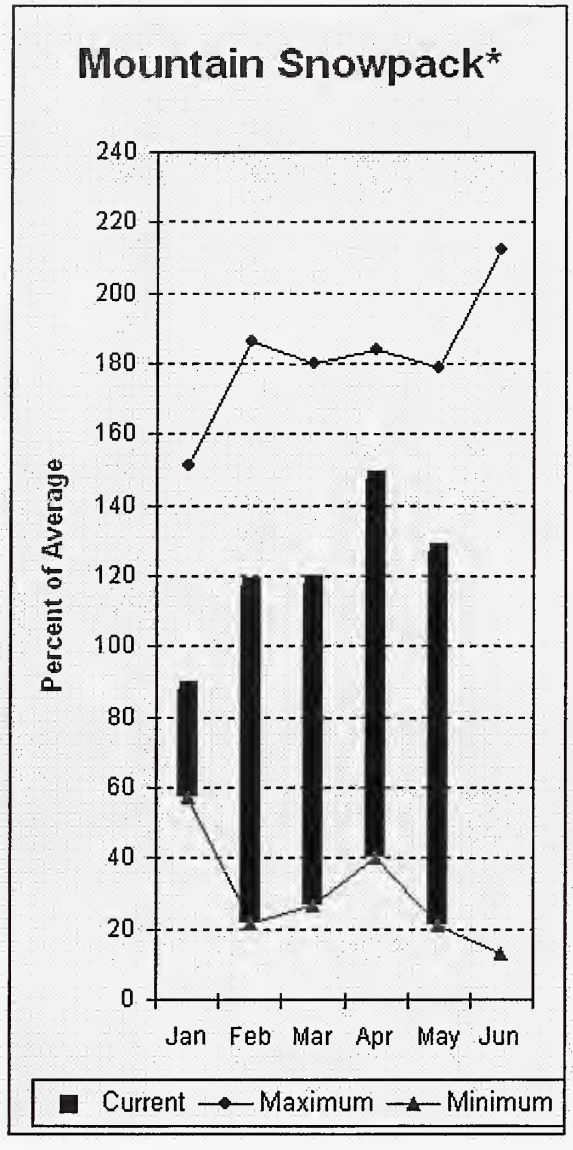
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
COLVILLE RIVER	0	0	0
PEND OREILLE RIVER	10	213	99
KETTLE RIVER	6	161	156

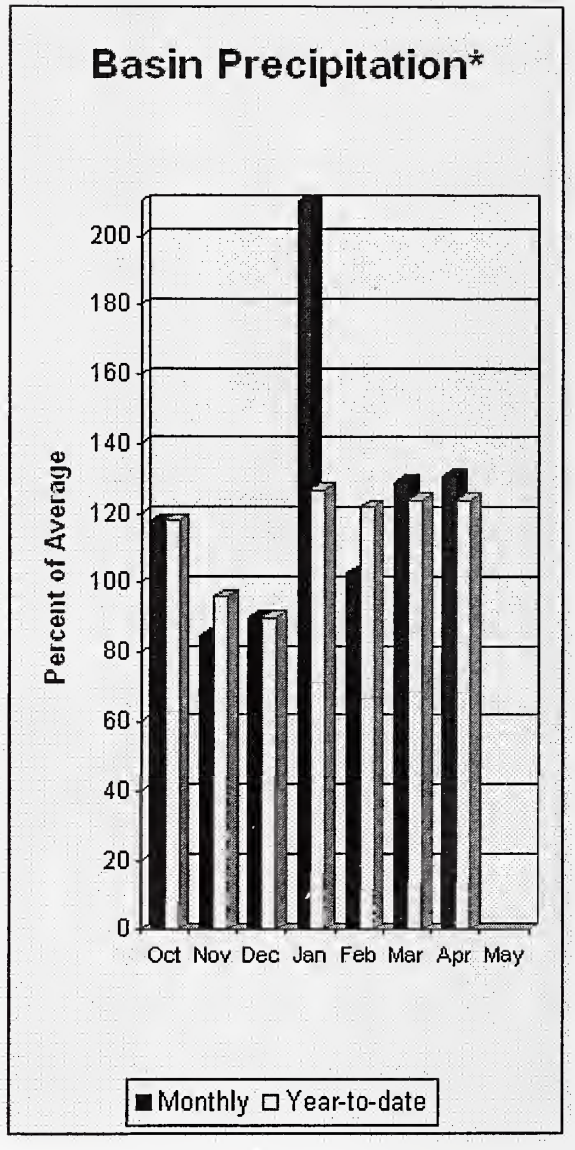
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Okanogan - Methow River Basins





*Based on selected stations

Summer runoff average forecast for the Okanogan River is 90%, Similkameen River is 90%, Methow River is 88% and Salmon Creek is 114%. May 1 snow cover on the Okanogan was 104% of average, Omak Creek was 209% and the Methow was 94%. April precipitation in the Okanogan-Methow was 131% of average, with precipitation for the water year at 124% of average. April streamflow for the Methow River was 103% of average, 69% for the Okanogan River and 76% for the Similkameen. Snow-water content at Moses Mtn. SNOTEL was 22.8to be 15 inches. Average for this site is 10.9 inches on May 1. Combined storage in the Conconully Reservoirs was 16,000-acre feet, which is 70% of capacity and 86% of the May 1 average. Temperatures were near normal for April and for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN near Nighthawk (1)	MAY-JUL	820	1015	1100	90	1190	1380	1220
	MAY-SEP	905	1100	1190	90	1280	1480	1320
OKANOGAN near Tonasket (1)	MAY-JUL	770	1110	1260	90	1410	1750	1400
	MAY-SEP	900	1260	1430	90	1600	1960	1590
OKANOGAN at Malott (1)	MAY-JUL	790	1140	1300	90	1460	1810	1449
	MAY-SEP	920	1300	1470	90	1640	2020	1641
Salmon Creek nr Conconully	MAY-JUL	10.9	15.7	19.4	117	24	30	16.6
	MAY-SEP	11.0	16.0	20	114	24	32	17.6
TOATS COULEE CREEK nr Loomis	MAY-JUL	22	28	32	119	36	42	27
	MAY-SEP	23	29	33	118	37	43	28
Beaver Creek blw SF nr Twisp	MAY-SEP	8.6	11.0	12.6	113	14.2	16.6	11.2
	MAY-JUL	8.0	10.3	11.9	118	13.5	15.8	10.1
METHOW RIVER near Pateros	MAY-SEP	670	730	775	88	820	880	880
	MAY-JUL	620	675	715	88	755	810	810

OKANOGAN - METHOW RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SALMON LAKE	10.5	8.2	6.2	8.9
CONCONULLY RESERVOIR	13.0	8.2	6.4	10.1

OKANOGAN - METHOW RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OKANOGAN RIVER	18	207	104
OMAK CREEK	1	0	209
SANPOIL RIVER	0	0	0
SIMILKAMEEN RIVER	2	186	80
TOATS COULEE CREEK	0	0	0
CONCONULLY LAKE	1	0	146
METHOW RIVER	3	331	94

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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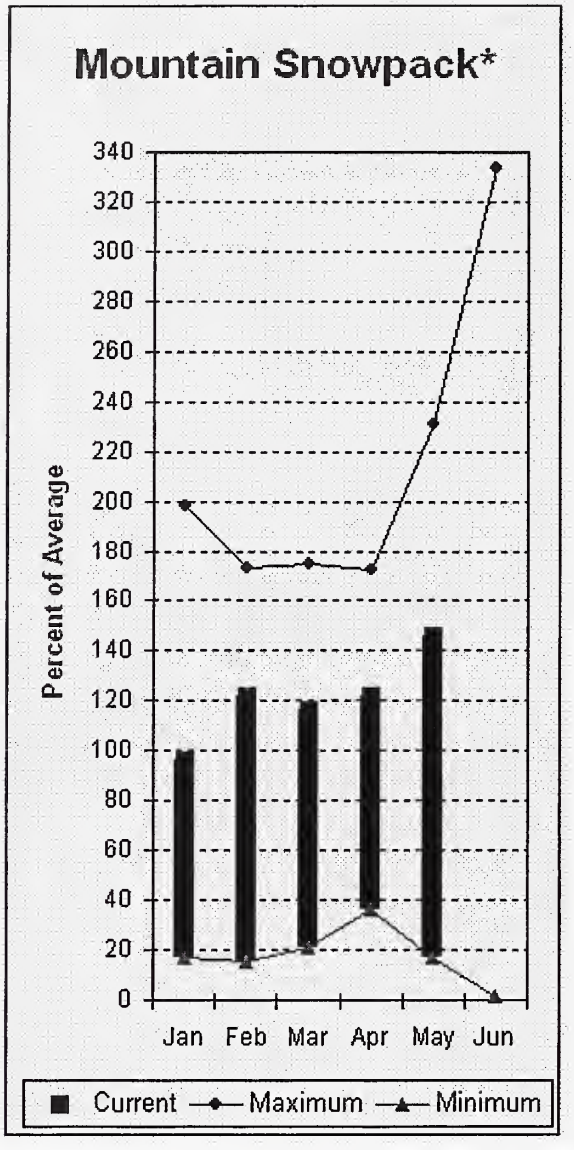
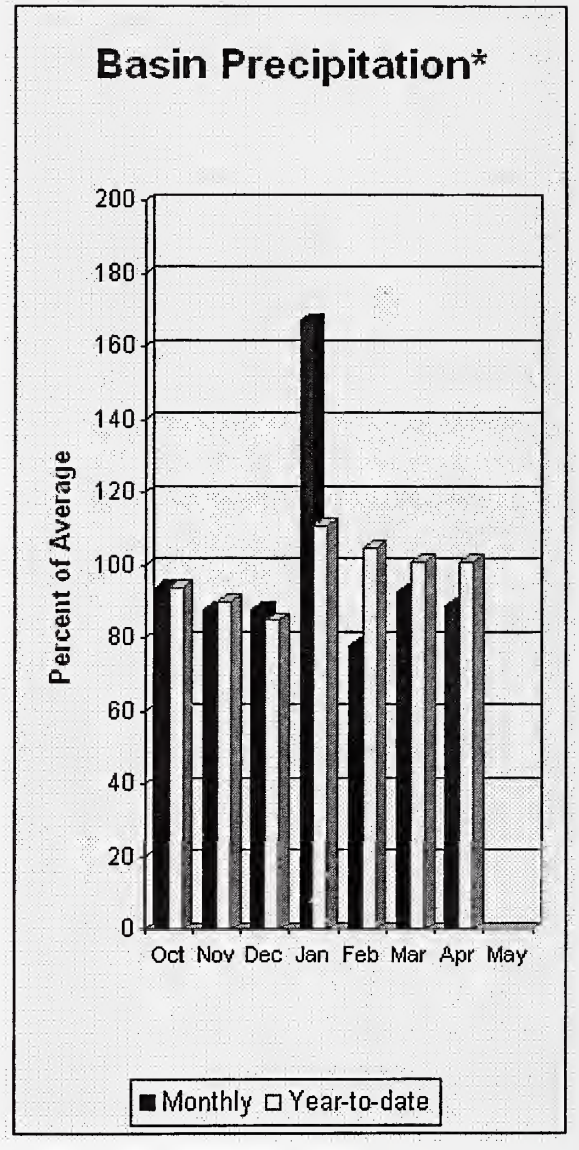
Wenatchee - Chelan River Basins





*Based on selected stations

Precipitation during April was 89% of average in the basin and 101% for the year-to-date. Runoff for Entiat River is forecast to be 107% of average for the summer. The May-September average forecast for Chelan River is 95%, Wenatchee River at Plain is 100%, Stehekin River is 97% and Stemilt Ck. near Wenatchee is 130%. Icicle and Squilchuck creeks are expected to have near average flows as well. April average streamflows on the Chelan River were 103% and on the Wenatchee River 81%. May 1 snowpack in the Wenatchee River Basin was 105% of average; the Chelan, 101%; the Entiat, 193%; Stemilt Creek, 171% and Colockum Creek, 160%. Reservoir storage in Lake Chelan was 146,000-acre feet, 55% of May 1 average and 22% of capacity. Lyman Lake SNOTEL had the most snow water with 68.8 inches of water. This site would normally have 67.2 inches on May 1. Temperatures were near normal for April and for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CHELAN RIVER near Chelan	MAY-SEP	890	950	1000	95	1050	1110	1050
	MAY-JUL	765	830	870	96	910	970	910
STEHEKIN near STEHEKIN	MAY-SEP	640	690	720	97	750	800	745
	MAY-JUL	525	570	600	97	630	675	620
ENTIAT RIVER nr Ardenvoir	MAY-SEP	210	225	230	107	235	250	215
	MAY-JUL	188	200	205	105	210	220	195
WENATCHEE at Plain	MAY-SEP	910	980	1030	100	1080	1150	1035
	MAY-JUL	825	880	920	101	955	1015	915
WENATCHEE R. at Peshastin	MAY-SEP	922	1213	1410	100	1607	1900	1410
	MAY-JUL	815	1074	1250	100	1426	1685	1250
STEMILT CK nr Wenatchee (miner's in)	MAY-SEP	144	165	179	130	193	215	138
ICICLE CREEK near Leavenworth	MAY-SEP	300	310	315	103	320	330	305
	MAY-JUL	265	280	290	104	300	315	280
COLUMBIA R. bl Rock Island Dam (2)	MAY-SEP	53679	57264	59700	97	62140	65720	61600
	MAY-JUL	43421	46921	49300	97	51680	55180	51100

WENATCHEE - CHELAN RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	146.2	545.2	265.6

WENATCHEE - CHELAN RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

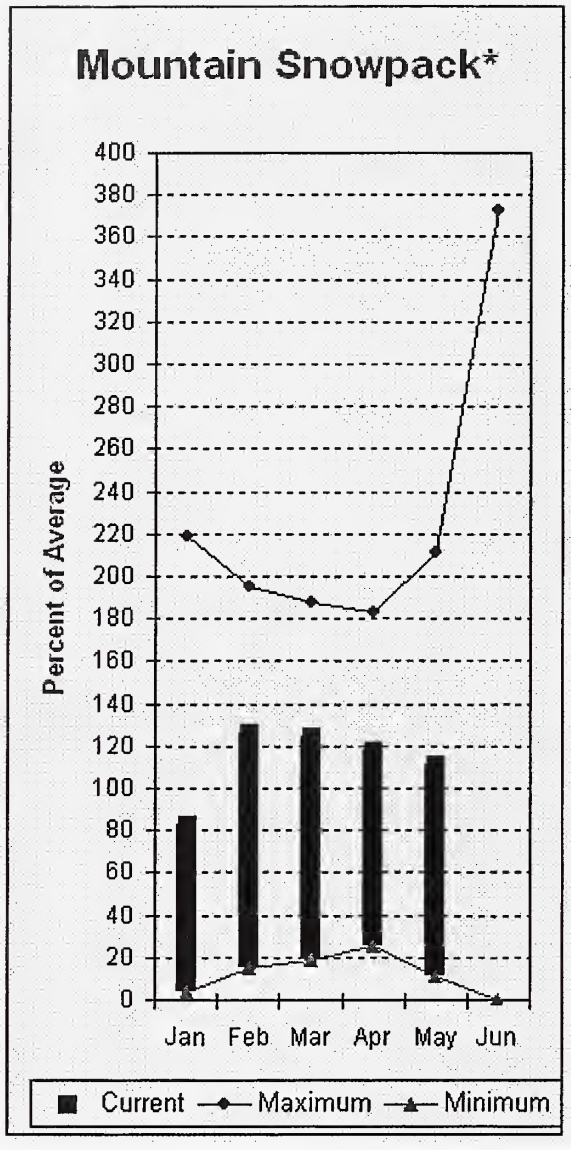
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CHELAN LAKE BASIN	4	293	101
ENTIAT RIVER	1	0	193
WENATCHEE RIVER	11	638	107
STEMILT CREEK	1	0	171
COLOCKUM CREEK	1	0	160

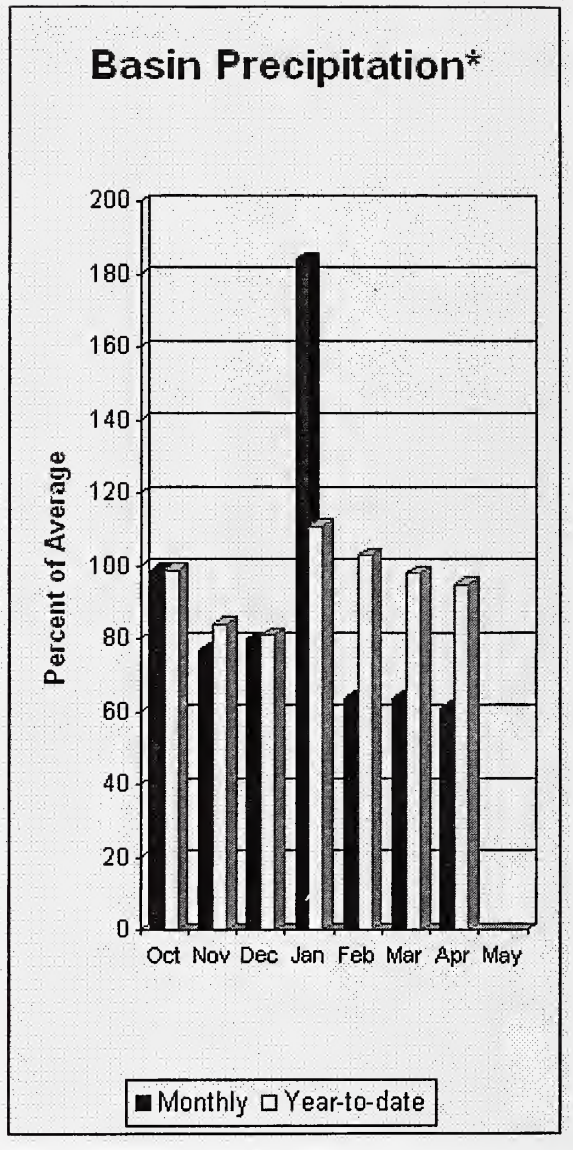
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yakima River Basin





*Based on selected stations

May 1 reservoir storage for the Upper Yakima reservoirs was 389,000-acre feet, 63% of average. Forecasts for the Yakima River at Cle Elum are 109% of average and the Teanaway River near Cle Elum is at 110%. Lake inflows are all forecasted to be near that same range this summer. April streamflows within the basin were Yakima near Cle Elum at 90% and Cle Elum River near Roslyn at 91%. May 1 snowpack was 111% based upon 7 snow course and SNOTEL readings within the Upper Yakima Basin. Precipitation was only 61% of average for April and 95% for the water-year. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KEECHELUS LAKE INFLOW	MAY-JUL	84	94	101	110	108	118	92
	MAY-SEP	92	105	113	110	121	134	103
KACHESS LAKE INFLOW	MAY-JUL	81	88	93	111	98	105	84
	MAY-SEP	88	96	102	111	108	116	92
CLE ELUM LAKE INFLOW	MAY-JUL	320	335	350	106	365	380	330
	MAY-SEP	360	385	400	107	415	440	375
YAKIMA at Cle Elum	MAY-JUL	625	665	695	109	725	765	635
	MAY-SEP	695	745	780	109	815	865	715
TEANAWAY near Cle Elum	MAY-JUL	86	95	101	111	107	116	91
	MAY-SEP	89	98	104	110	110	119	95

UPPER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	92.1	114.0	125.6
KACHESS	239.0	116.4	158.9	188.3
CLE ELUM	436.9	180.6	330.1	307.0

UPPER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - May 1, 2006

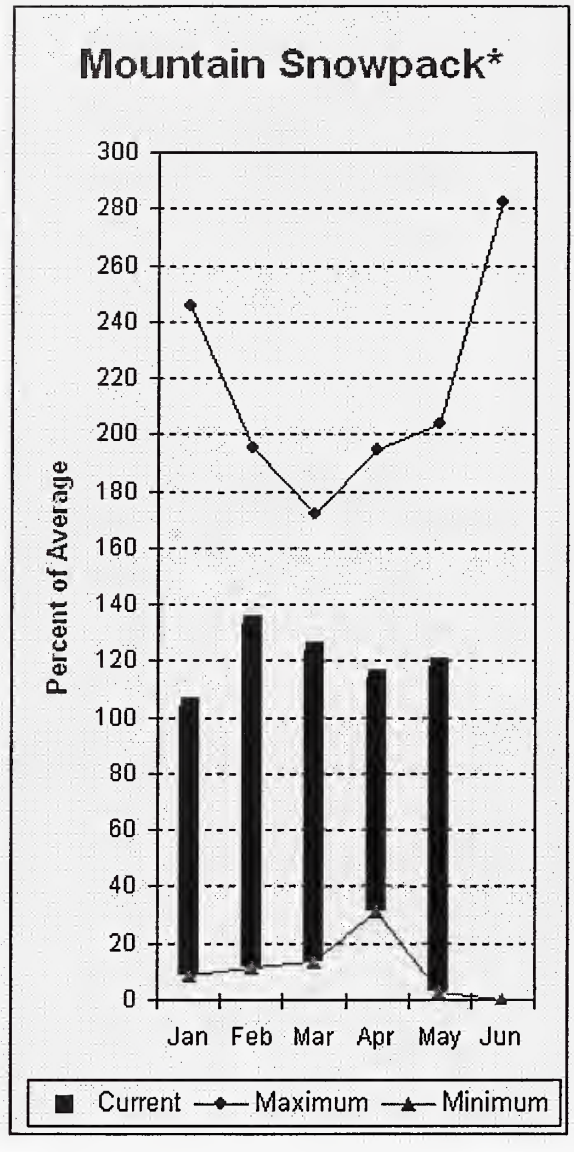
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER YAKIMA RIVER	8	912	112

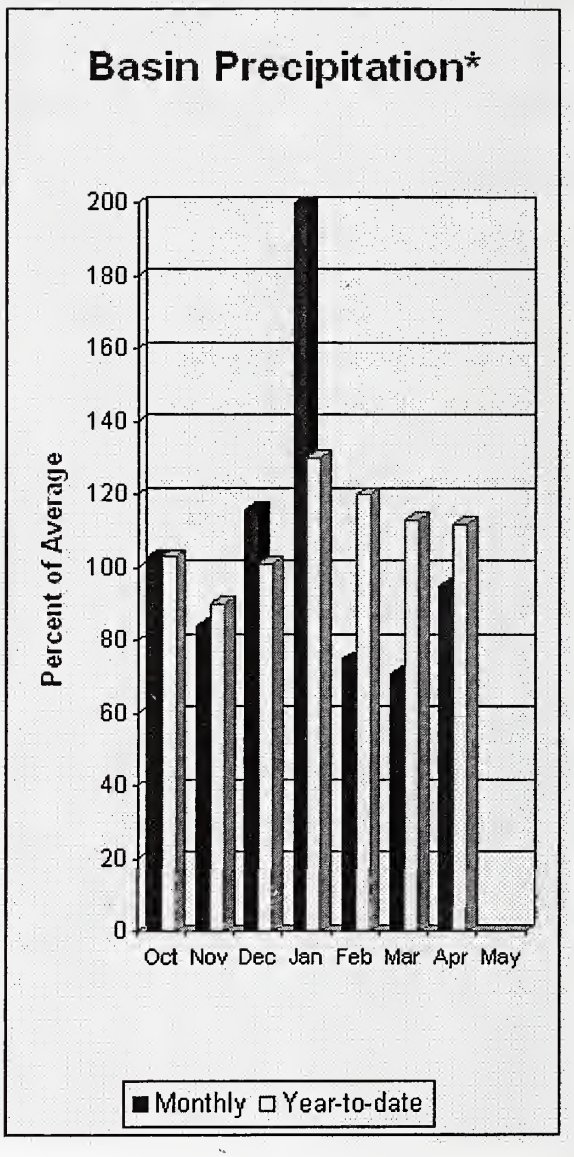
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yakima River Basin





*Based on selected stations

April average streamflows within the basin were: Yakima River near Parker, 112%; Naches River near Naches, 116%; and Yakima River at Kiona, 96%. May 1 reservoir storage for Bumping and Rimrock reservoirs was 186,000-acre feet, 110% of average. Forecast averages for Yakima River near Parker are 112%; American River near Nile, 113%; Ahtanum Creek, 122%; and Klickitat River near Glenwood, 119%. May 1 snowpack was 118% based upon 6 snow course and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 124%of average. Precipitation was 95% of average for April and 112% year-to-date for water. Temperatures were near normal for April and near average for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they May differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BUMPING LAKE INFLOW	MAY-SEP	110	121	128	113	135	146	113
	MAY-JUL	103	111	117	114	123	131	103
AMERICAN RIVER near Nile	MAY-SEP	98	107	113	113	119	128	100
	MAY-JUL	89	97	103	114	109	117	90
RIMROCK LAKE INFLOW	MAY-SEP	199	215	225	110	235	250	205
	MAY-JUL	168	179	187	111	195	206	168
NACHES near Naches	MAY-SEP	645	700	735	108	770	825	680
	MAY-JUL	575	620	650	108	680	725	600
AHTANUM CREEK at Union Gap	MAY-SEP	22	26	28	122	30	34	23
	MAY-JUL	20	24	26	124	28	32	21
YAKIMA near Parker	MAY-SEP	1480	1580	1650	112	1720	1820	1480
	MAY-JUL	1290	1380	1440	112	1500	1590	1290
KLICKITAT near Glenwood	MAY-JUN	106	114	120	118	126	134	102
	MAY-SEP	141	152	160	119	168	179	135

LOWER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BUMPING LAKE	33.7	24.1	33.9	19.6
RIMROCK	198.0	161.8	179.3	149.4

LOWER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average

* * 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
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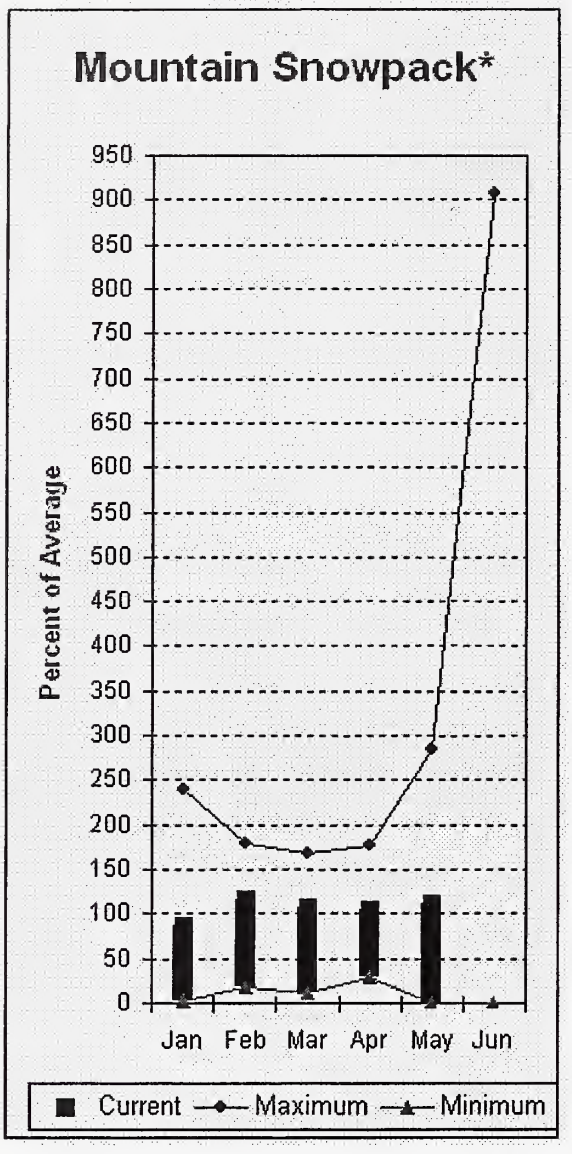
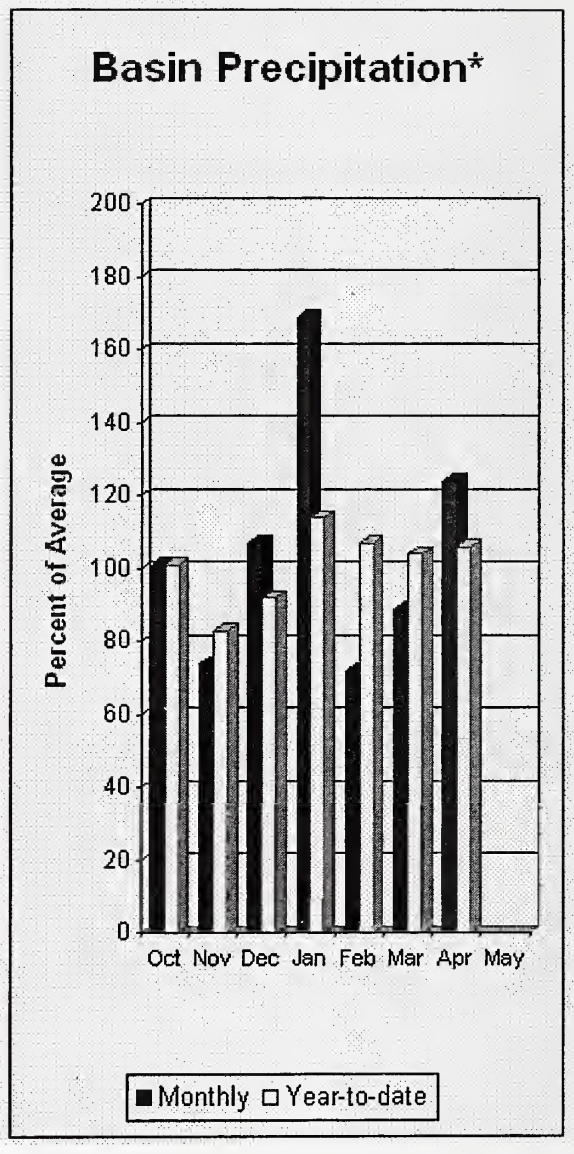
Walla Walla River Basin





*Based on selected stations

April precipitation was 124% of average, maintaining the year-to-date precipitation at 106% of average. Snowpack in the basin was 112% of average. Streamflow forecasts are 108% of average for Mill Creek and 106% for the SF Walla Walla near Milton-Freewater. April streamflow was 193% of average for the Walla Walla River. Average temperatures were 1 degree above normal for April and 1 degree above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
3F WALLA WALLA near Milton-Freewater	MAY-JUL	33	37	40	105	43	47	38
	MAY-SEP	46	51	54	106	57	62	51
MILL CREEK at Kooskooskie	MAY-JUL	11.6	14.1	16.0	109	18.0	21	14.7
	MAY-SEP	14.8	17.7	19.8	108	22	26	18.4

WALLA WALLA RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WALLA WALLA RIVER	2	1278	112

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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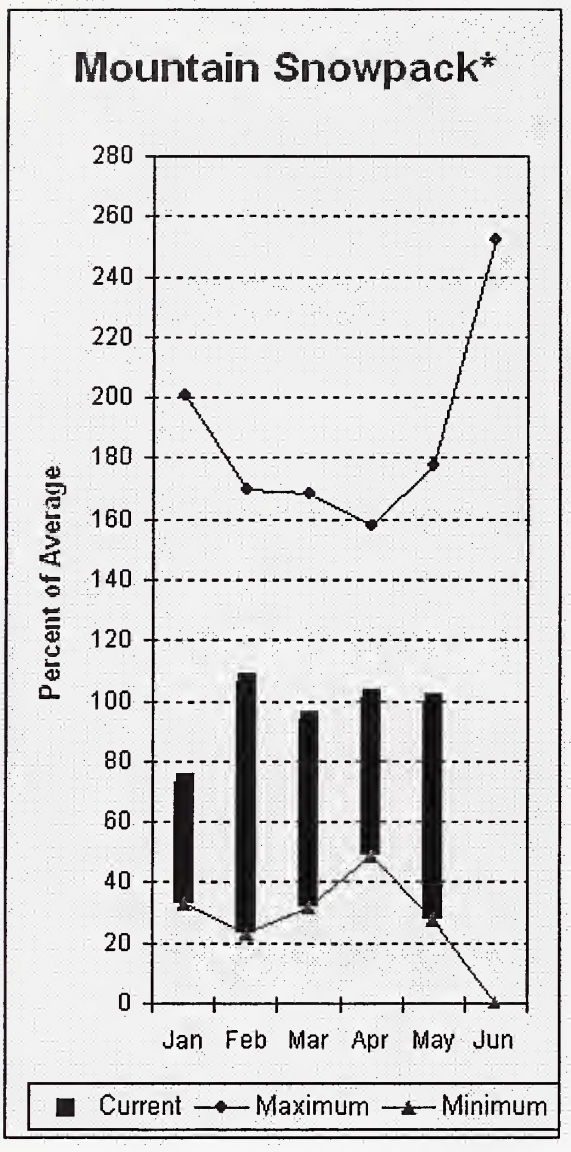
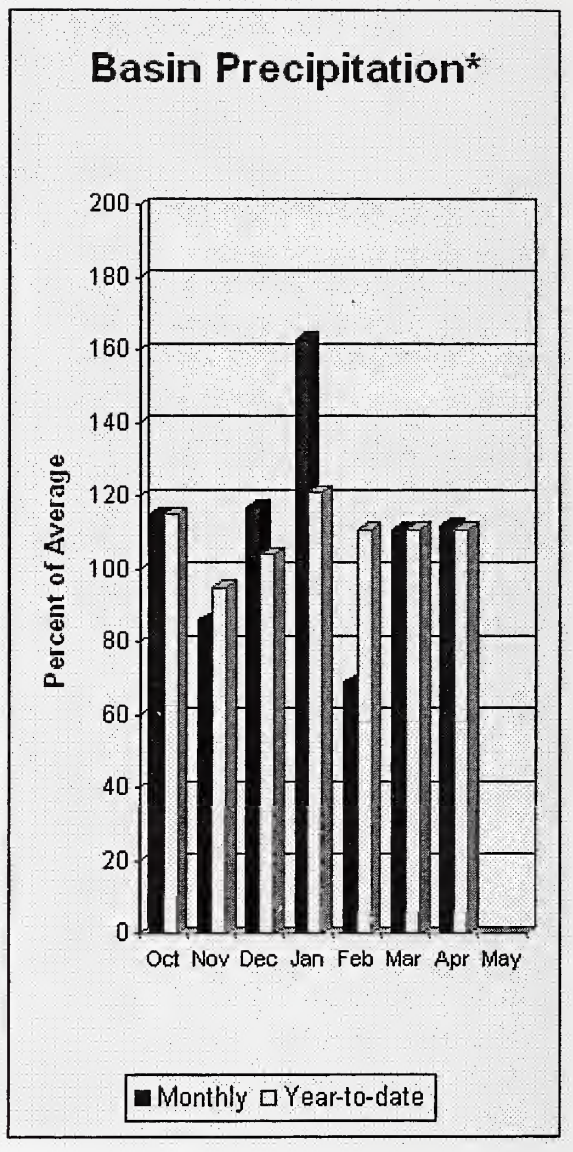
Lower Snake River Basin





*Based on selected stations

The May-September forecast is for 101% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 118% and 108% of normal respectively. April precipitation was 112% of average, maintaining the year-to-date precipitation at 111% of average. May 1 snowpack readings averaged 100% of normal. April streamflow was 151% of average for Snake River below Lower Granite Dam and 128% for Grande Ronde River near Troy. Average temperatures were 2 degrees above for April and 1 degree above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GRANDE RONDE at Troy (1)	MAY-JUL	736	904	980	108	1056	1225	910
	MAY-SEP	818	1005	1090	108	1175	1360	1010
CLEARWATER at Spalding (1,2)	MAY-JUL	4750	5490	5830	101	6170	6910	5770
	MAY-SEP	5090	5890	6250	101	6610	7410	6190
SNAKE blw Lower Granite Dam (1,2)	MAY-JUL	16510	18772	19800	119	20830	23090	16700
	MAY-SEP	18995	21612	22800	118	23990	26600	19300

LOWER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
DWORSHAK	3468.0	2447.3	3326.4	2421.3

LOWER SNAKE RIVER BASIN
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LOWER SNAKE, GRANDE RONDE	10	218	100

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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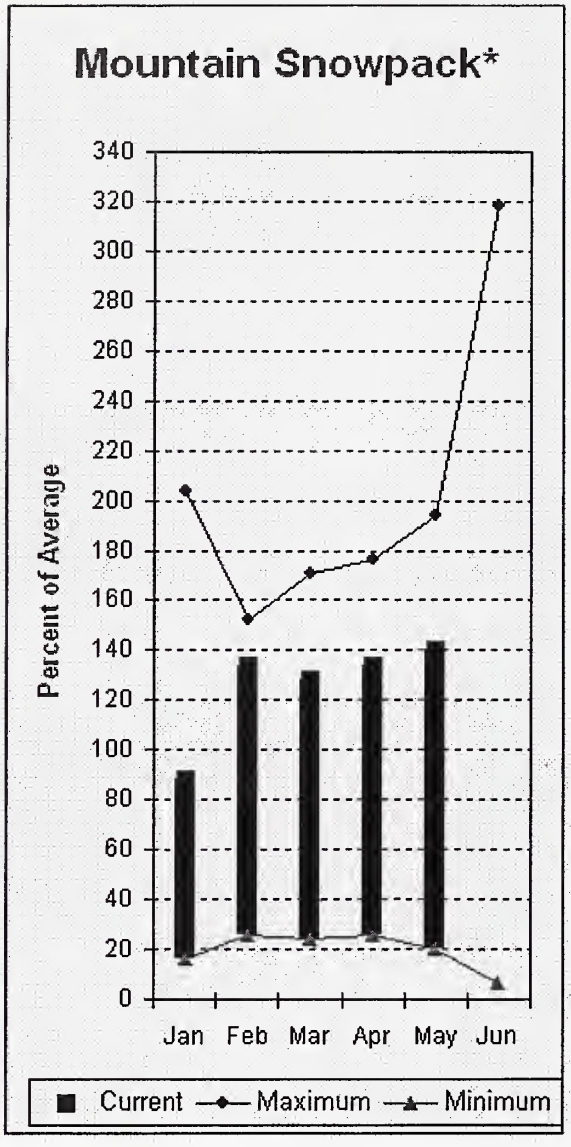
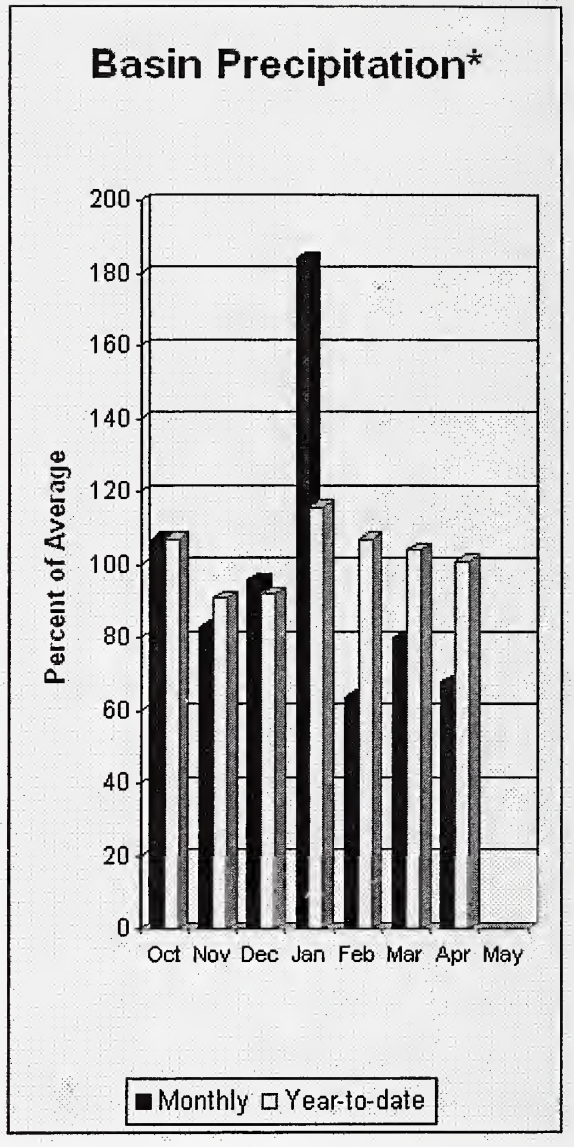
Cowlitz - Lewis River Basins





*Based on selected stations

Forecasts for May – September streamflows within the basin are Lewis River at Ariel, 122% and Cowlitz River at Castle Rock, 113% of average. The Columbia at The Dalles is forecasted to have 98% of average flows this summer. April average streamflow for Cowlitz River was 82% and 96% for Lewis River. The Columbia River at The Dalles was 130% of average. April precipitation was 68% of average and the water-year average was 101%. June Lake SNOTEL received 9.6 inches of precipitation in April, normal is 12.4 inches. May 1 snow cover for Cowlitz River was 118%, and Lewis River was 163% of average. Average temperatures were 2 degrees above normal during April and 1 degree above for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LEWIS at Ariel (2)	MAY-JUL	726	800	850	127	900	974	667
	MAY-SEP	863	939	990	122	1041	1117	812
COWLITZ R. bl Mayfield Dam (2)	MAY-SEP	890	1354	1670	113	1986	2450	1478
	MAY-JUL	764	1154	1420	114	1686	2076	1247
COWLITZ R. at Castle Rock (2)	MAY-SEP	1203	1797	2200	112	2603	3197	1972
	MAY-JUL	1010	1504	1840	113	2176	2670	1629
CLICKITAT near Glenwood	MAY-JUN	106	114	120	118	126	134	102
	MAY-SEP	141	152	160	119	168	179	135
COLUMBIA R. at The Dalles (2)	MAY-SEP	71444	78265	82900	98	87530	94360	84500
	MAY-JUL	59344	65034	68900	98	72770	78460	70500

COWLITZ - LEWIS RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
MOSSYROCK	0.0	1223.6	1496.1	---
SWIFT	0.0	671.6	751.4	---
YALE	0.0	383.4	372.9	---
MERWIN	0.0	407.5	419.3	---

COWLITZ - LEWIS RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LEWIS RIVER	5	1369	163
COWLITZ RIVER	5	423	118

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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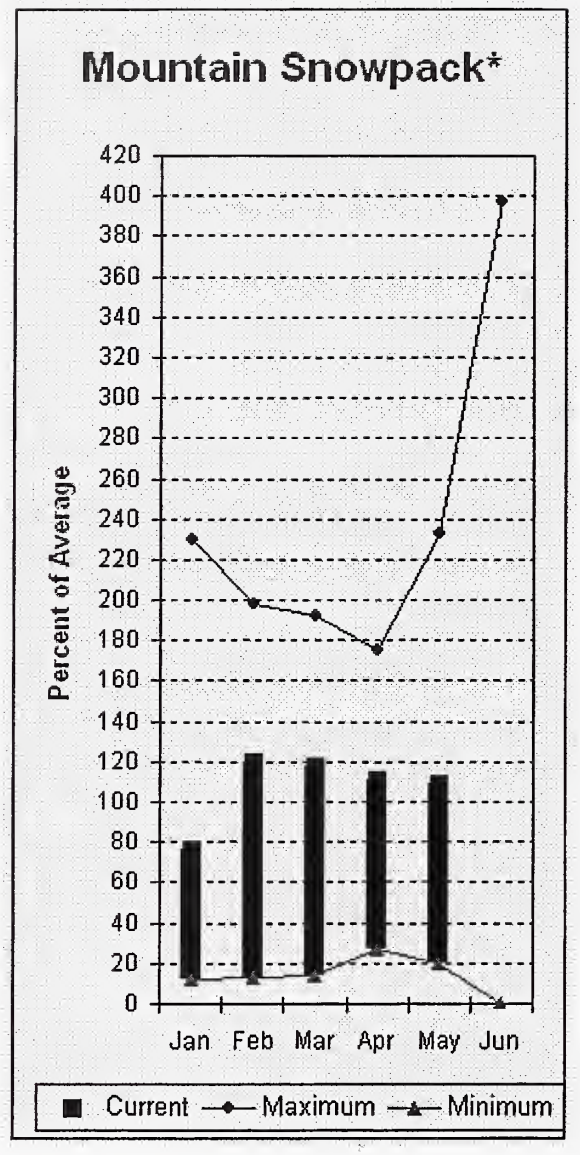
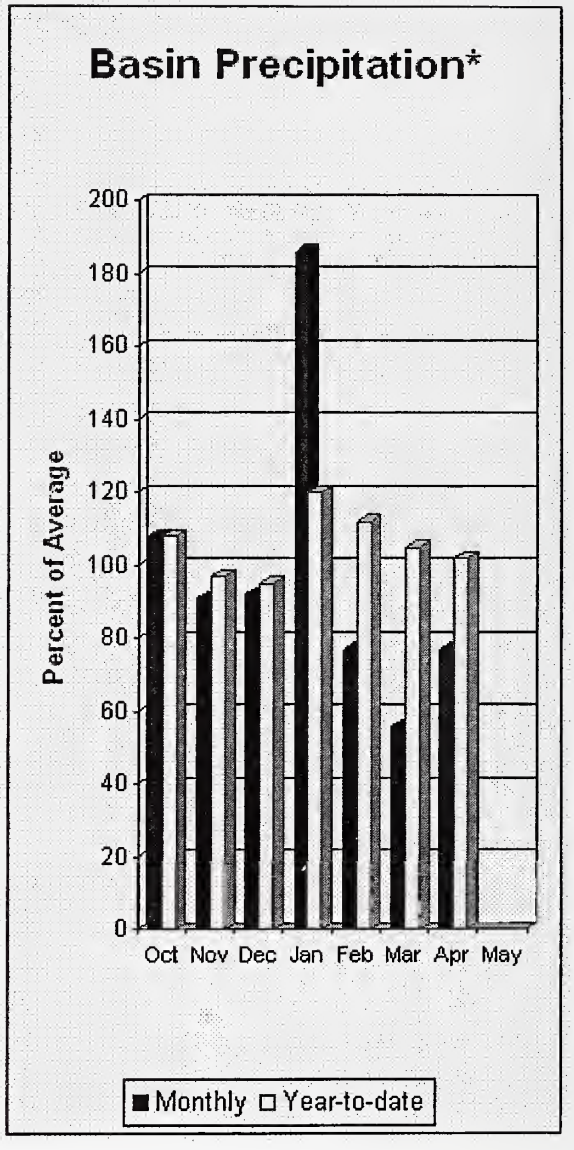
White - Green River Basins





*Based on selected stations

Summer runoff is forecast to be 116% of normal for the Green River below Howard Hanson Dam and 108% for the White River near Buckley. May 1 snowpack was 119% of average in both White River and Puyallup River basins and 99% in Green River Basin. Water content on May 1 at Corral Pass SNOTEL, at an elevation of 6,000 feet, was 41 inches. This site has a May 1 average of 35.3 inches. April precipitation was 77% of average, dropping the water year-to-date to 102% of average for the basins. Average temperatures in the area were 1 degree above normal for April and 1 degree above for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WHITE near Buckley (1,2)	MAY-JUL	296	350	375	108	400	454	348
	MAY-SEP	389	448	475	108	502	561	442
GREEN below Howard Hanson (1,2)	MAY-JUL	142	175	190	109	205	238	175
	MAY-SEP	161	198	215	106	232	269	202

WHITE - GREEN - PUYALLUP RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WHITE - GREEN - PUYALLUP RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WHITE RIVER	2	328	119
GREEN RIVER	6	4114	104
PUYALLUP RIVER	2	370	119

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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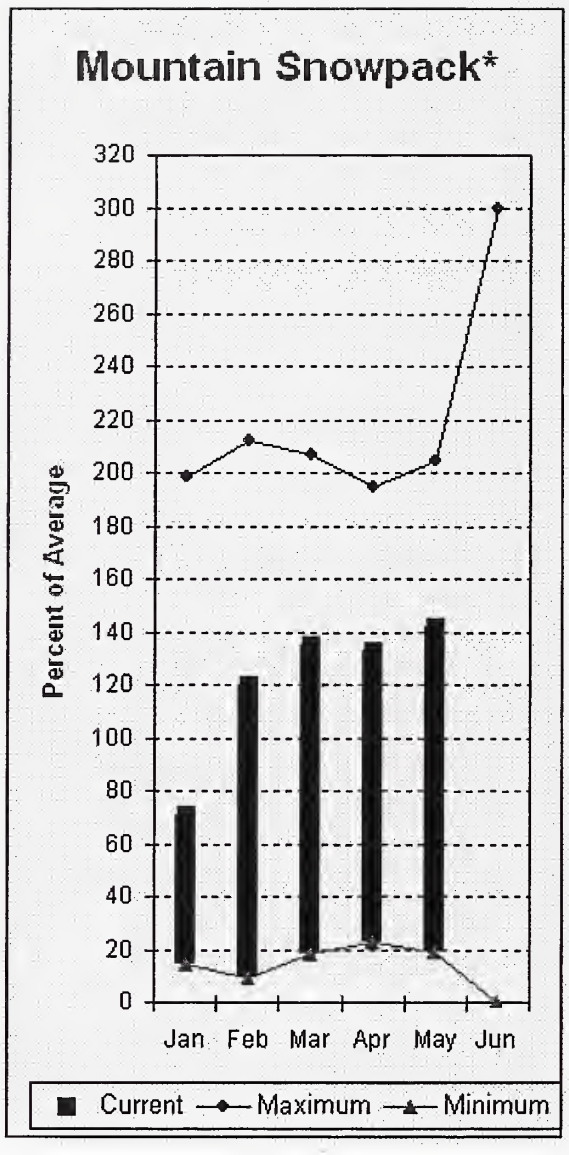
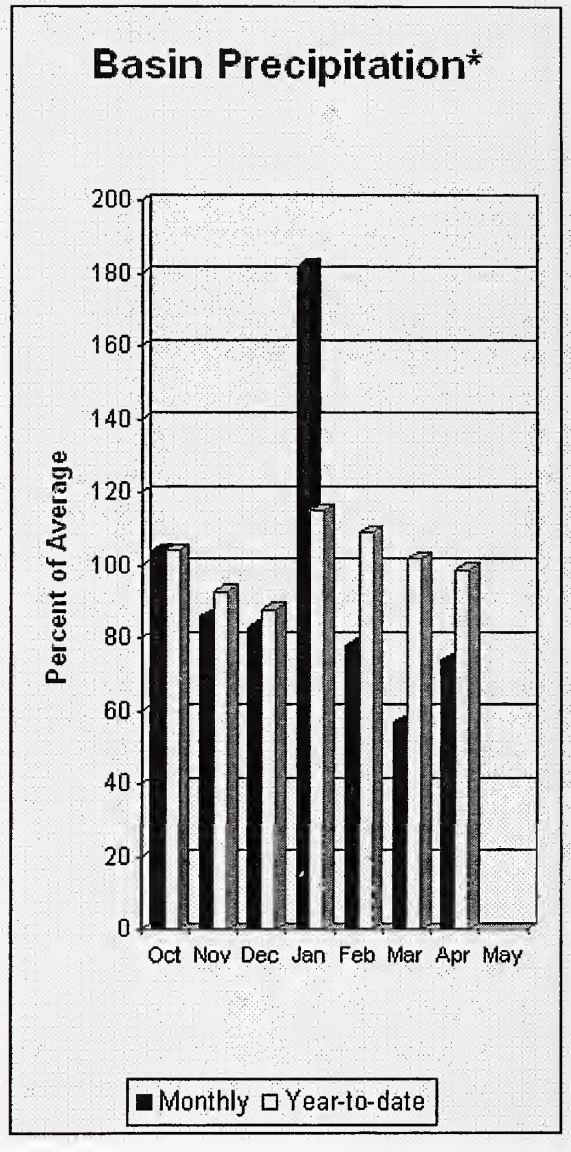
Central Puget Sound River Basins





*Based on selected stations

Forecast for spring and summer flows are: 98% for Cedar River near Cedar Falls; 97% for Rex River; 104% for South Fork of the Tolt River; and 106% for Cedar River at Cedar Falls. Basin-wide precipitation for April was 74% of average, bringing water-year-to-date to 99% of average. May 1 average snow cover in Cedar River Basin was 175%, Tolt River Basin was 150%, Snoqualmie River Basin was 125%, and Skykomish River Basin was 120%. Olallie Meadows SNOTEL site, at 3960 feet, had 64.6 inches of water content. Average May 1 water content is 55.1 inches at Olallie Meadows. Temperatures were near average for April and for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CEDAR near Cedar Falls	MAY-JUL	40	47	52	100	57	64	52
	MAY-SEP	45	53	58	98	63	71	59
REX near Cedar Falls	MAY-JUL	11.5	14.8	17.0	98	19.2	23	17.4
	MAY-SEP	13.2	16.9	19.4	97	22	26	20
CEDAR RIVER at Cedar Falls	MAY-JUL	17.9	36	49	104	62	80	47
	MAY-SEP	11.9	33	48	104	63	84	46
SOUTH FORK TOLT near Index	MAY-JUL	9.0	10.5	11.5	105	12.5	14.0	11.0
	MAY-SEP	10.8	12.7	14.0	106	15.3	17.2	13.2

CENTRAL PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

CENTRAL PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CEDAR RIVER	4	0	175
TOLT RIVER	2	649	150
SNOQUALMIE RIVER	4	682	125
SKYKOMISH RIVER	3	801	120

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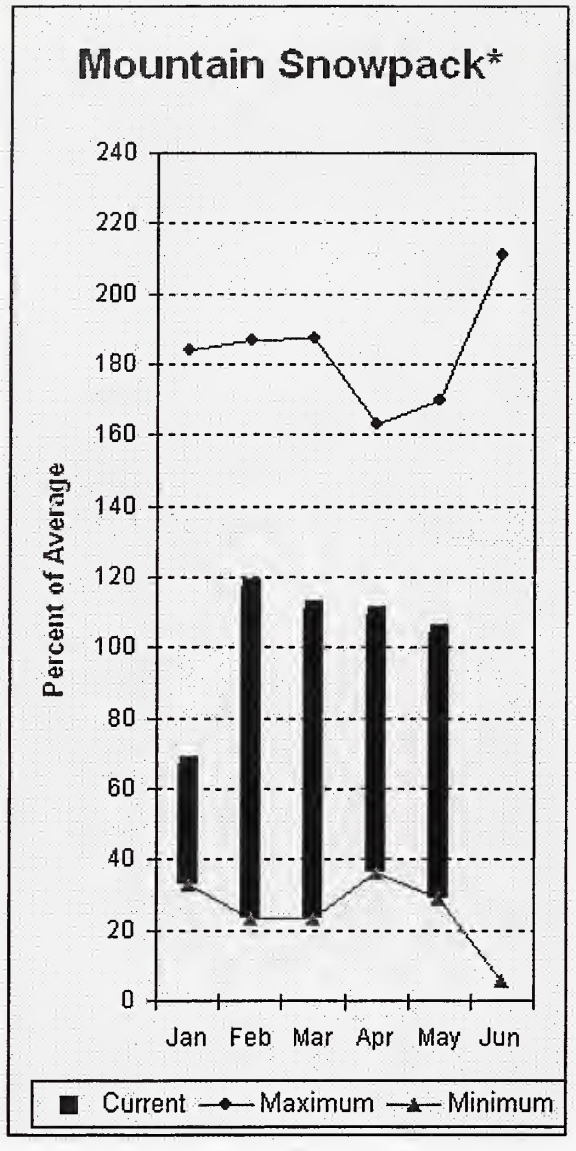
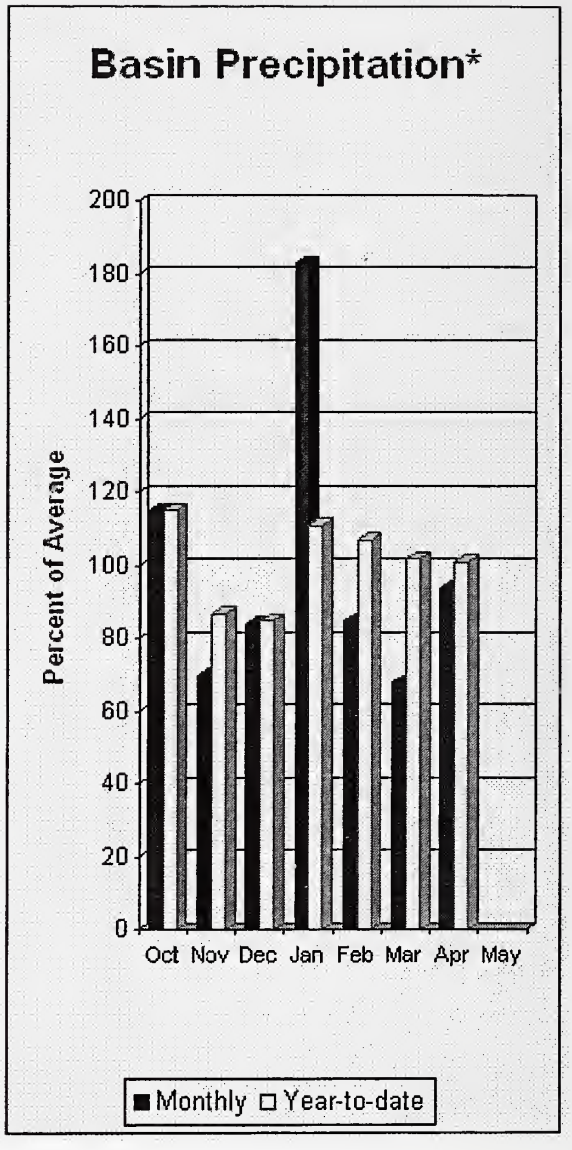
(2) - The value is natural volume - actual volume may be affected by upstream water management.

North Puget Sound River Basins





*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 97% of average for the spring and summer period. April streamflow in Skagit River was 79% of average. Other forecast points included Baker River at 98% and Thunder Creek at 100% of average. Basin-wide precipitation for April was 94% of average, bringing water-year-to-date down to 101% of average. May 1 average snow cover in Skagit River Basin was 94% and Nooksack River Basin was 112%. Baker River Basin snow surveys showed above average conditions at 105%. Rainy Pass SNOTEL, at 4,780 feet, had 37.7 inches of water content. Average May 1 water content is 43.2 inches at Rainy Pass. In preparation for spring runoff, May 1 Skagit River reservoir storage was down to 79% of average and 42% of capacity. Average temperatures for April were near normal for the basin and 1 degree above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	MAY-JUL	189	204	215	101	226	241	212
	MAY-SEP	284	300	310	100	320	336	310
SKAGIT at Newhalem (2)	MAY-JUL	1465	1551	1610	100	1669	1755	1611
	MAY-SEP	1743	1837	1900	97	1963	2057	1964
BAKER RIVER near Concrete	MAY-JUL	615	666	700	102	734	785	684
	MAY-SEP	763	838	890	98	942	1017	906

NORTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS	1404.1	537.8	1144.5	708.8
DIABLO RESERVOIR	90.6	86.9	83.9	85.9

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SKAGIT RIVER	12	315	94
BAKER RIVER	9	0	105
NOOKSACK RIVER	1	343	112

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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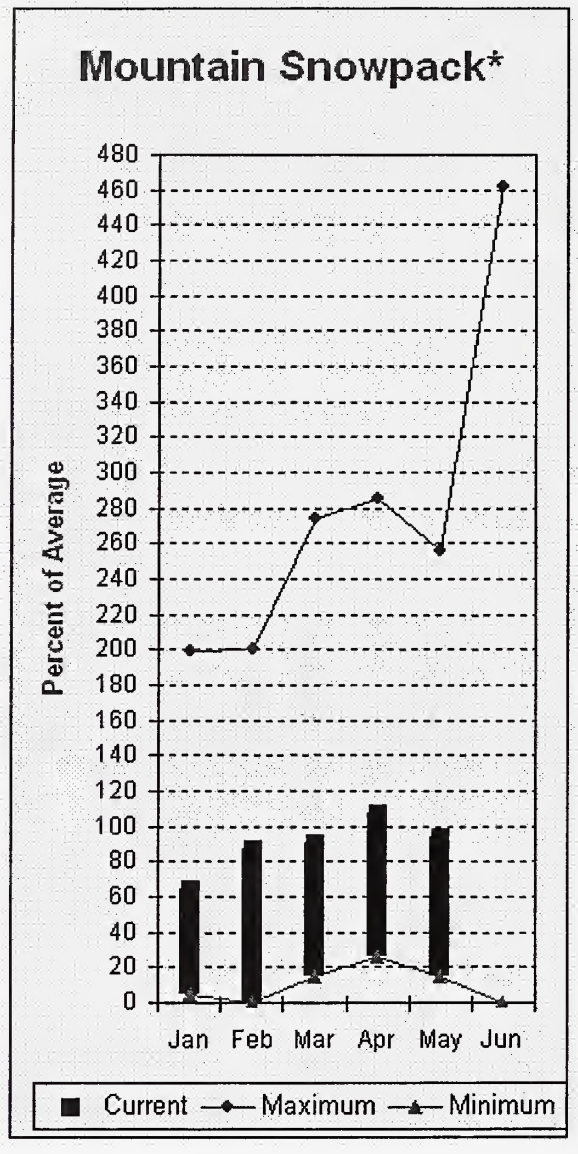
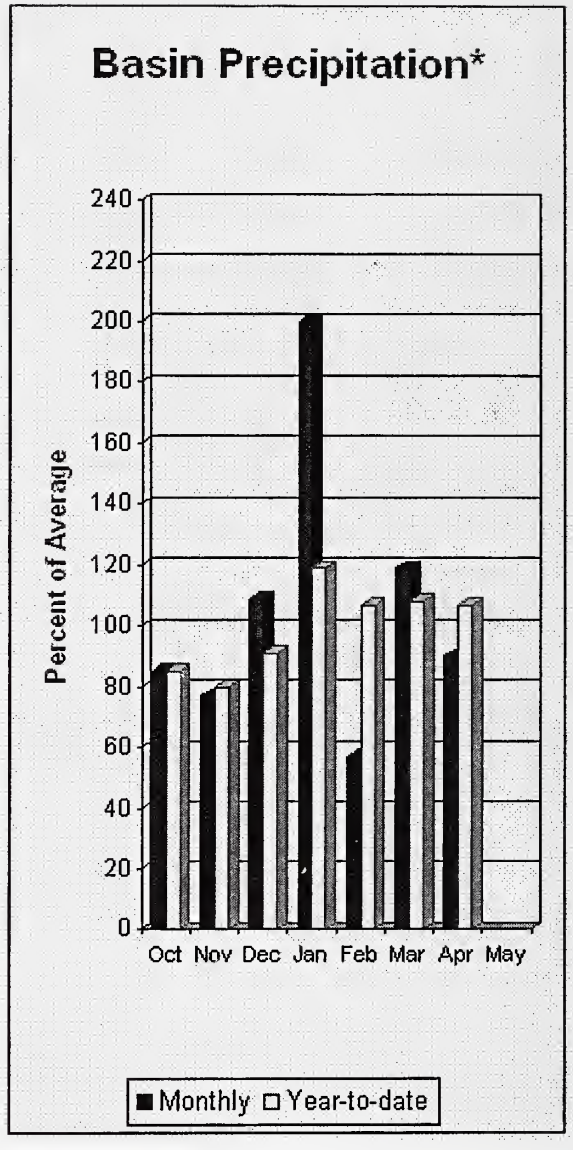
Olympic Peninsula River Basins





*Based on selected stations

Forecasted average runoff for streamflow for both the Dungeness and Elwha rivers is 105% and 103% respectively. April runoff in the Dungeness River was 82% of normal. Big Quilcene and Wynoochee rivers should expect near average runoff this summer as well. April precipitation was 90% of average. Precipitation has accumulated at 107% of average for the water year. April precipitation at Quillayute was 5.92 inches. The thirty-year average for April is 7.44 inches. Olympic Peninsula snowpack averaged 94% of normal. Mt Crag SNOTEL reported 88 inches of snow depth with 26 inches of water content. Normal May 1 snow-water-content at Mt. Crag is 27.8 inches. Temperatures were slightly below average for April and 1 degree above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - May 1, 2006

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS near Sequim	MAY-SEP	124	132	138	105	144	152	132
	MAY-JUL	102	108	112	107	116	122	105
ELWHA near Port Angeles	MAY-SEP	390	417	435	103	453	480	423
	MAY-JUL	314	336	350	104	364	386	338

OLYMPIC PENINSULA RIVER BASINS
Reservoir Storage (1000 AF) - End of April

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - May 1, 2006

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OLYMPIC PENINSULA	4	607	94

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Issued by

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The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work*:

Canada	Ministry of Sustainable Resources Snow Survey, River Forecast Centre, Victoria, British Columbia
State	Washington State Department of Ecology Washington State Department of Natural Resources
Federal	Department of the Army Corps of Engineers U.S. Department of Agriculture Forest Service U.S. Department of Commerce NOAA, National Weather Service U.S. Department of Interior Bonneville Power Administration Bureau of Reclamation Geological Survey National Park Service Bureau of Indian Affairs
Local	City of Tacoma City of Seattle Chelan County P.U.D. Pacific Power and Light Company Puget Sound Power and Light Company Washington Water Power Company Snohomish County P.U.D. Colville Confederated Tribes Spokane County Yakama Indian Nation Whatcom County Pierce County
Private	Okanogan Irrigation District Wenatchee Heights Irrigation District Newman Lake Homeowners Association Whitestone Reclamation District

*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

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Washington Water Supply Outlook Report

Natural Resources Conservation Service
Spokane, WA